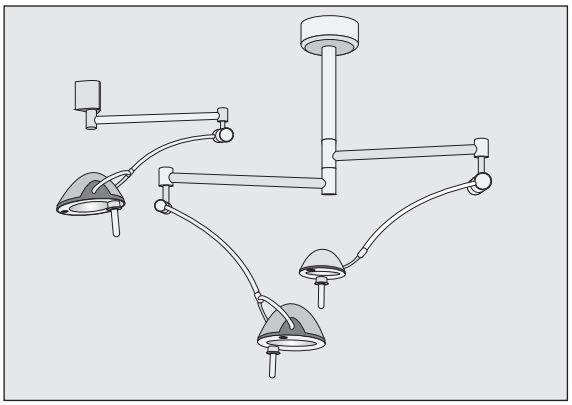
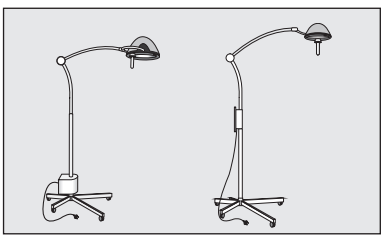
MAQUET

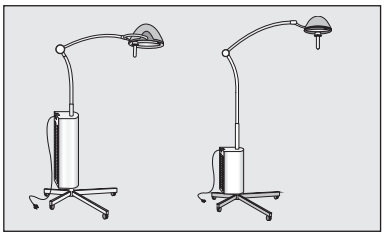
BLUELINE

Ceiling, wall-mounted or mobile surgical light

Technical manual EN







BLUELINE NT 0136201 EN Ed1A 01/08

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QUALITY STANDARDS COMPLIANCE

Certification of MAQUET SA's quality system

LNE/G-MED certifies that the quality system developed by MAQUET SA for design, implementation, sales, installation and after-sales service of surgical lights complies with the requirements of the following international standards:

- ISO 9001:2000
- NF EN ISO 13485:2004

Reference standards

The BLUE 30/80 surgical light was designed to comply with the following standards:

- EN ISO 14971:2000 Medical devices - Application of risk management to medical devices (ISO 14971:2000)
- EN ISO 14971:2000/A1:2003
- EN 60601-1:1990 Medical electrical equipment - Part 1: General requirements for safety
  Amendment A1:1993 to EN 60601-1:1990
  Amendment A2:1995 to EN 60601-1:1990
  Amendment A13:1996 to EN 60601-1:1990
- EN 60601-1-2:2001 Medical electrical equipment - Part 1-2: General requirements for safety - Collateral standard: Electromagnetic compatibility - Requirements and tests
- EN 60601-1-4:1996 Medical electrical equipment - Part 1-4: General requirements for safety - Collateral standard: Programmable electrical medical systems
  Amendment A1:1999 to EN 60601-1-4:1996
- EN 60601-1-6:2004 Medical electrical equipment - Part 1-6: General requirements for safety - Collateral standard: Usability
- EN 60601-2-41:2000 Medical electrical equipment - Part 2-41: Particular requirements for the safety of surgical luminaires and luminaires for diagnosis

This product has been verified for compliance with the following additional standards: CAN/CSA-C22.2 No. 601.1-M90 (R2005) (includes national differences for Canada), EN 60601-1:1990 + A1:1993 + A2:1995 + A13:1996, UL 60601-1, first edition, 2006-04-26 (includes national differences for the USA).

This product only meets FCC/UL requirements when equipped with a MAQUET SA power supply.

CE labelling/intended use

Compliance with the requirements of Directive 93/42/EEC on medical devices has been assessed and approved by LNE/G-MED. BLUE 30/80 surgical lights belong to Class I as described in Annex IX of Directive 93/42/EEC.

This range includes single or dual ceiling-mounted, single wall-mounted and mobile light units with or without battery-backed power supply.

SYMBOLS USED IN THE MANUAL

Symbol	Meaning
	Mandatory: may affect patient or user safety
	Recommendation: risk of damage to device or accessories
	CE mark: The device complies with the requirements of European Directive 93/42/EEC on Medical Devices.
	This device complies with Canadian and US safety requirements.

1 GENERAL CHARACTERISTICS
(IN ACCORDANCE WITH STANDARD IEC 60 601-2-41)

Specifications		Unit	BLUE 30	BLUE 80
Nominal illumination*		lx +/- 10%	35,000	90,000
Nominal voltage		V DC	22.8	22.8
Maximum power		W	40	80
Colour temperature		K +/-6%	4600	4600
Colour rendering index			>85	>85
Illumination depth		cm (inch)	175 (69)	140 (67)
Diameter d10		cm (inch) +/- 10%	17 (6.7)	16 (6.3)
Diameter d50		cm (inch) +/- 10%	10 (3.9)	10 (3.9)
Shadow dilution	With one mask	%	0 %	6 %
	With two masks	%	62%	49 %
	At base of tube	%	100 %	100 %
	With one mask, at base of tube	%	0 %	6 %
	With two masks, at base of tube	%	62 %	49 %
Irradiance (Ee)*		W/m^2	140	360

* Values measured during certification:
BLUE 30: 38.400 lx / 139 W/m^2
BLUE 80: 85.500 lx / 305 W/m^2

2 CLEANING / DISINFECTION / STERILISATION

Users must contact their hospital's sanitary specialists. The recommended products and procedures must be applied. Should there be any doubt concerning the compatibility of active agents to be used, contact the local Maquet customer service department.

2.1 Cleaning and disinfecting the surgical light

☞ Check that the power is switched off and the light is cool before cleaning.

2.1.1 General instructions concerning cleaning, disinfection and safety

- Remove the sterilisable handles.
- Clean the system using a cloth soaked in surface detergent, in line with the manufacturer's recommended dilution, application time and temperature.
- Use a cloth to rinse the unit with clean water and wipe dry.
- Disinfect uniformly using a cloth soaked in a disinfectant, in line with the manufacturer’s recommendations.
- Use a cloth to rinse with clean water in order to remove residues (in particular products containing aldehydes, quaternary ammonium or surfactants).
- Wipe with a dry cloth.

2.1.2 Examples of recommended products

Getinge USA product: TEC-QUAT 256

Anios products: SURFA’SAFE, 0.5% HEXANIOS G + R (ammonium IV, polyhexanide); ANIOSYME P.L.A (quaternary ammonium, enzymes); SALVANIOS pH10 (quaternary ammonium, guanidinium); ANIOS DDSH (quaternary ammonium, guanidinium).

Schülke & Mayr products: Antifect Plus (Glyoxal), Terralin (Benzyl-C12-18-alkyldimethyl ammonium, phenoxypropan and phenoxypropanol).

2.1.3 Examples of prohibited products

☞ Solutions containing glutaraldehyde, phenol, iodine, bleach, alcohol or chloride ions must not be used.

⚠ Fumigation methods are unsuitable for disinfecting the unit and must not be used.

2.2 Cleaning and sterilising the handles

2.2.1 Before cleaning

- Use a soft cloth immediately after use to wipe away soiling from the handle surface.
- Store handles in a place that keeps them moist to make further cleaning easier.
- Take care to store them in such a way that the inside does not get soiled.

2.2.2 Cleaning

- Soak the handles in a detergent solution.[1]
- Soak for 15 minutes to allow the solution to act, then clean by hand with a soft brush and a lint-free cloth.
- During cleaning, check regularly that the handles are fully clean and that no soiling remains on the inside or outside.
- If any soiling remains, repeat cleaning or use an ultrasonic cleaning process.
- Rinsing: Rinse thoroughly in clean water to completely eliminate the detergent solution.
- Drying: Wipe with a clean lint-free cloth.

[1] Never soak the handles in enzyme-based detergents as they may damage the material used; rinse thoroughly if these detergents are used.

2.2.3 Washing and disinfection

Handles may be disinfected by machine (Clean Maquet) and rinsed at a maximum temperature of 93°C.
Typical recommended cycles:

2.2.4 Sterilisation

Step	Temperature	Time
Pre-wash	18 - 35°C	60 sec
Wash	46 - 50°C	300 sec
Neutralisation	41 - 43°C	30 sec
Wash 2	24 - 28°C	30 sec
Rinse	92 - 93°C	600 sec
Dry		20 min

After cleaning, the handles must be steam sterilised as set out below:

Countries	Sterilisation cycle	Temperature [°C]	Time [min]	Drying [min]
USA & Canada	Prevacuum[2]	132 - 135	10	16
France	ATNC (Prion) (Prevacuum)	134	18	
Other countries	Prevacuum	Comply with national regulations		

- Check that each handle is clean before continuing the process.
- Wrap the handles with sterilisation wrapper material (double wrapper or equivalent).
  Handles may also be placed in paper or plastic sterilisation bags[3], for easier identification and reuse.
- Place the handles on steriliser trays with the opening downwards.[4]
- Package with biological and/or chemical indicators for monitoring the sterilisation process, in accordance with applicable regulations.
- Run the sterilisation cycle according to the steriliser manufacturer's instructions.

☞ To ensure correct sterilisation do not allow any soiling to penetrate inside the handle.

☞ Handles are not guaranteed beyond 350 sterilisation cycles with the above sterilisation parameters.

- Dispose of sterilisable handles in the same way as other hazardous products in a hospital environment.

[2] This handle is made of a porous material.

[3] Possible sterilisation bag suppliers:
Medical Action Industries
SBW Medical
Baxter International

[4] For air removal and faster drying.

3 GENERAL MAINTENANCE

Isolate the surgical light from all electrical power sources and/or check that it is connected to an isolating transformer at very low voltage.

If the spring arm is not disabled when dismantling the lighthead, the arm may spring up abruptly and present a hazard. The first step is therefore to disable the spring arm.

The light unit becomes hot during operation. Allow it to cool down before any maintenance or repair work.

3.1 Preventive maintenance

To preserve your surgical light's original performance and reliability, annual maintenance and inspections should be performed as follows:

- By a Maquet technician or Maquet-approved distributor during the guarantee period.
- By a Maquet technician or Maquet-approved distributor or by the hospital's technical maintenance department outside the guarantee period (contact your dealer to arrange the required technical training).

3.2 First level maintenance

3.2.1 Daily inspection (user)

- Check that the bulbs operate correctly.
- Check that the sterilisable handle locks correctly in place, and replace it if not.
- Check the arm position.
- If a backup power supply is installed, check that the light would operate correctly if a power cut were to occur.
- Check the overall condition of the unit: paintwork in good condition, screws fastened tightly, bezels and covers in position.

3.2.2 Annual inspection (must be performed by an authorised technician)

- Check that the limit stops are in place and in good condition.
- Check and tighten the brakes.
- Check the bulb holder and replace if necessary.
- Check that the lighthead limit stops are in place and in good condition.
- For the BLUE HOSPITAL, check the battery autonomy and the backup supply changeover system (see section 5.4).
- Check that the underside is in good condition and replace it if necessary.

Safety items

Check the following points:

- Attachment screws on suspension tube correctly tightened, seals in position.
- Arm(s) correctly mounted.
- All covers and caps installed.

Other checks

- Nominal illumination: see technical data.
- Earth continuity: 0.1 Ohm maximum.
- Suspension tube vertical.
- Balancing system adjusted correctly.
- Sterilisable handle locking mechanism.
- Voltage.

Dismantling certain elements may affect operation and safety. For example:

- Servicing the electrical power supply.
- Servicing the suspension arm and balance system.
- Servicing the optical system of lightheads equipped with filters designed to eliminate radiation not visible to the patient. Surgical lights must never be used without these filters.

Contact the authorised Maquet after-sales service department for this type of inspection.

BLUE 30

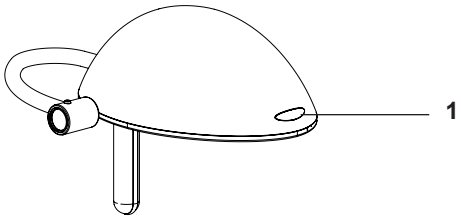
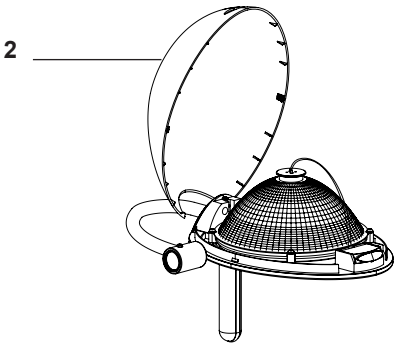


Figure 1



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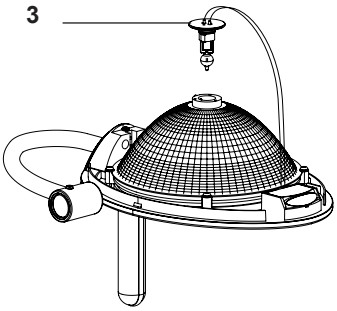

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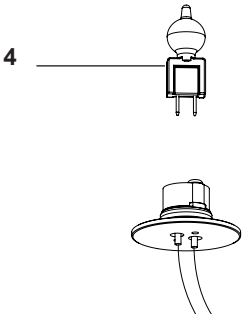

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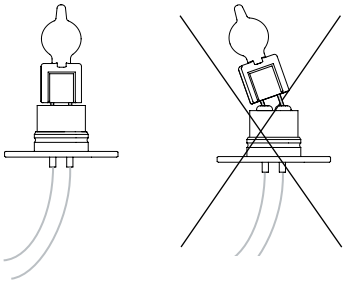

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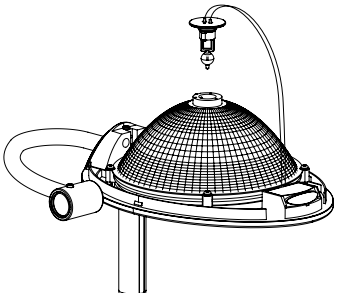

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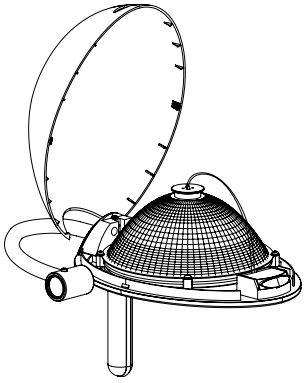


Figure 7

3.3 Changing the bulb

BLUE 30 lighthead

When changing a blown bulb:

- Switch off the power supply and leave the lighthead to cool for 25 minutes.
- Only use MAQUET bulbs.
- Handle bulbs carefully through a cloth or wearing gloves.
- Never touch bulbs with bare hands. Grease on bulbs can shorten their life.

Do not change bulbs during an operation.

The unit is designed to operate with the cover closed. When conducting maintenance, take precautions to avoid touching surfaces marked as hot with the following symbol:

To avoid failures during operations, we recommend changing the bulbs on a preventive basis every 600 hours.

Figures 1 and 2

- Press the locking tab (1) and raise the casing of the failed bulb (2).

Figure 3

- Remove the bulb holder (3), taking care not to knock the hot bulb against any surfaces.

Figure 4

- Take the failed bulb (4) and remove it from the holder.
- Take the new bulb and remove it from its packaging.

Figure 5

- Insert the bulb pins into the bulb holder as far as they can go.
- Check that the bulb is correctly seated.

If the bulb cannot be inserted fully, do not force it beyond the limit stop.

Figure 6

- Replace the bulb holder (3) and check that the locking tab clicks audibly into place.

Figure 7

- Close the cover and check that the locking tab clicks audibly into place.

Check that the cover is correctly in place.

BLUE 80

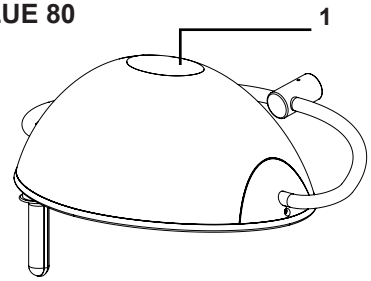
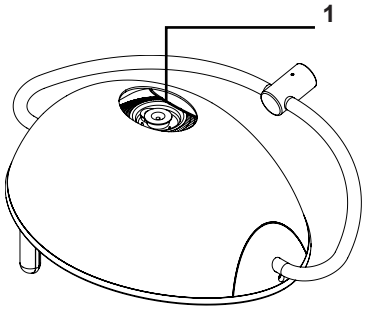


Figure 1



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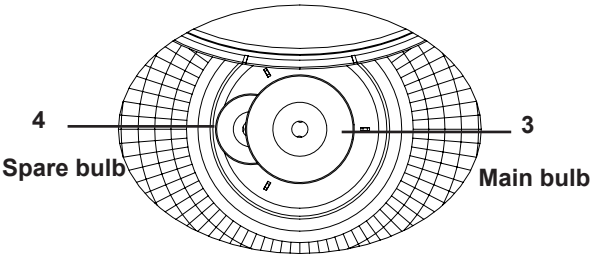
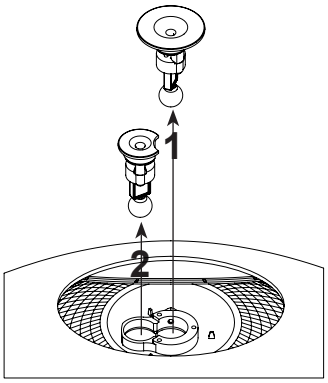


Figure 3



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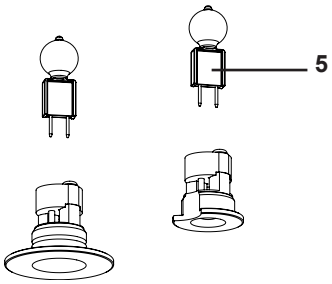

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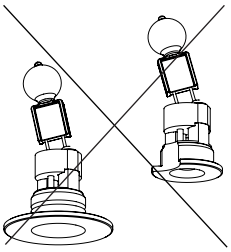

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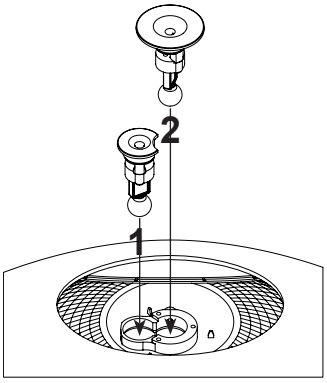

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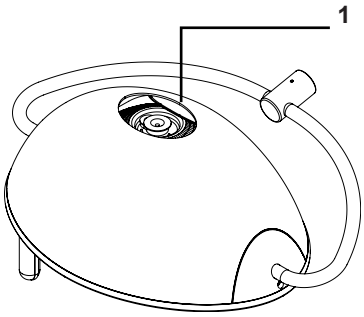


Figure 8

BLUE 80 lighthead

When changing a blown bulb:

- Switch off the power supply and leave the lighthead to cool for 20 minutes.
- Only use MAQUET bulbs.
- Handle bulbs carefully through a cloth or wearing gloves.
- Never touch bulbs with bare hands. Grease on bulbs can shorten their life.

Do not change bulbs during an operation.

The unit is designed to operate with the cover closed. When conducting maintenance, take precautions to avoid touching surfaces marked as hot with the following symbol:

To avoid failures during operations, we recommend changing the main and spare bulbs on a preventive basis every 750 hours.

The yellow indicator on the underside of the BLUE 80 lighthead is lit if the spare bulb is activated. To avoid a total failure of the surgical light, change the main bulb as soon as possible. We recommended changing the spare bulb at the same time.

Figures 1 and 2

- Push the cover in slightly (1) and slide it sideways.

Figures 3 and 4

- First remove the main bulb holder (3), then the spare bulb holder (4), taking care not to knock the hot bulb against any surfaces.

Figure 5

- Take the failed bulb (5) and remove it from the holder.
- Take the new bulb and remove it from its packaging.
- Insert the bulb pins into the bulb holder as far as they can go.

If the bulb cannot be inserted fully, do not force it beyond the limit stop.

Figure 6

- Check that the bulb is correctly seated.

Figure 7

- Replace the spare bulb holder first, then the main bulb holder, checking that the locking tab clicks audibly into place in each case.

Figure 8

- Close the cover (1) and check that it is correctly in place.

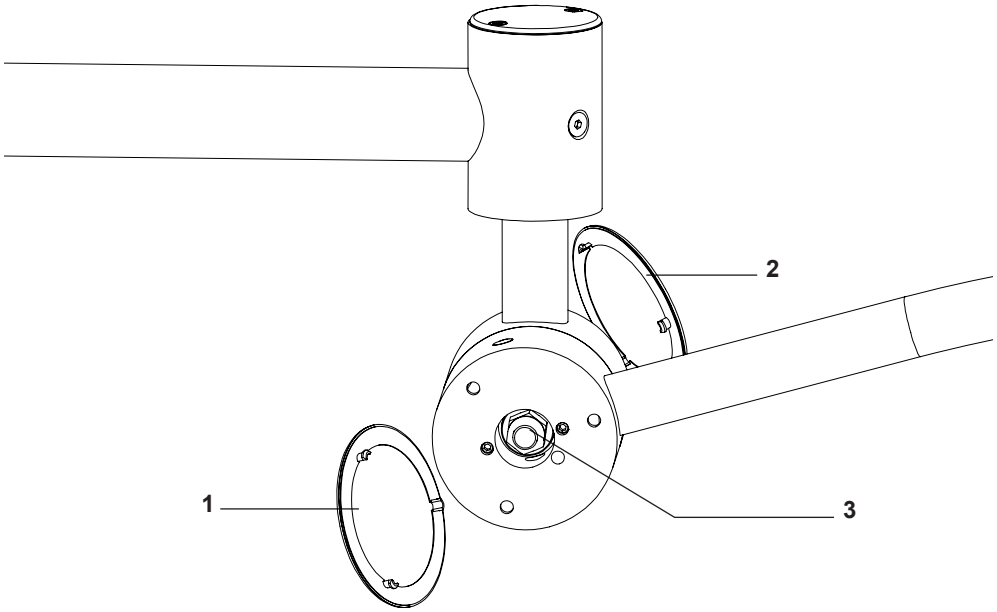


Figure 33

1 Bezel on mobile arm of spring arm

2 Bezel on fixed arm of spring arm

3 Adjustment nut

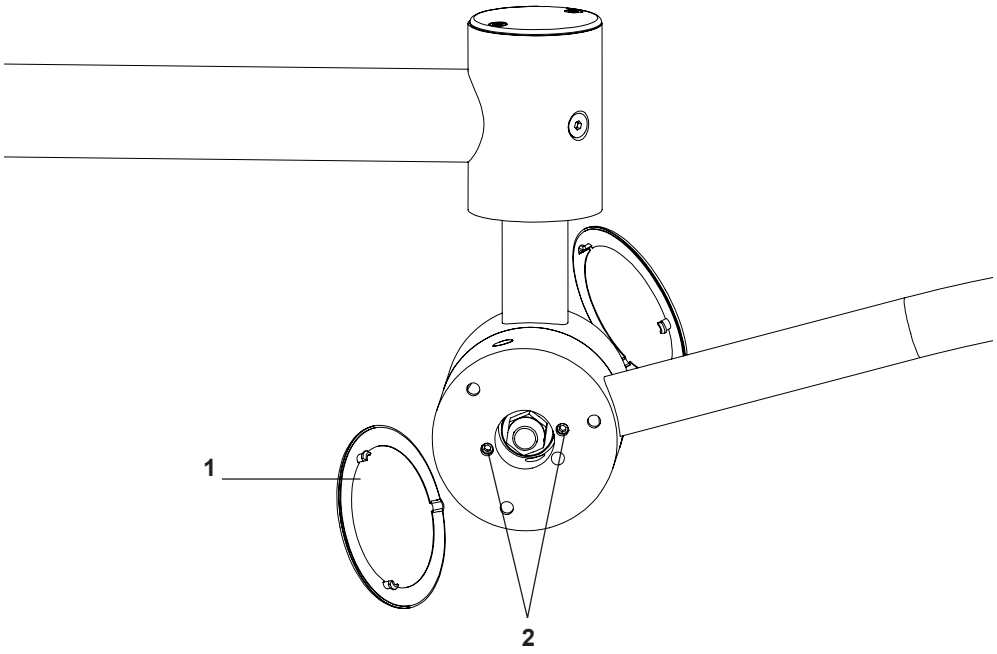


Figure 34

1 Bezel on mobile arm of spring arm

2 Set screw

3.4 Adjusting the balance

Figure 33

☞ If the spring arm does not remain steady in all positions, the force of the spring in the arm can be increased or decreased.

- Remove the bezel from the mobile arm of the spring arm (1) and, for the BLUE 80, the bezel from the fixed arm (2).
- Turn the adjustment nut (3) by no more than half a turn, holding the hexagon socket screw on the opposite side in position for the BLUE 80.
  - If the lighthead goes down, turn to the right.
  - If the lighthead goes up, turn to the left.
- Check that the spring arm remains steady in each position.
- Replace the bezel(s).

3.5 Adjusting the lighthead top limit stop BLUE 80

Figure 34

☞ BLUE 80 lightheads can be adjusted so that the travel cannot exceed the ceiling height.

- Carefully remove the bezel from the mobile arm of the spring arm (1).
- Position the lighthead at the maximum desired height.

The spring arm may be damaged if the socket screws are not tightened evenly.

Tighten the socket screws uniformly.

- Tighten the two socket screws (2) until resistance is felt.

BLUE 30

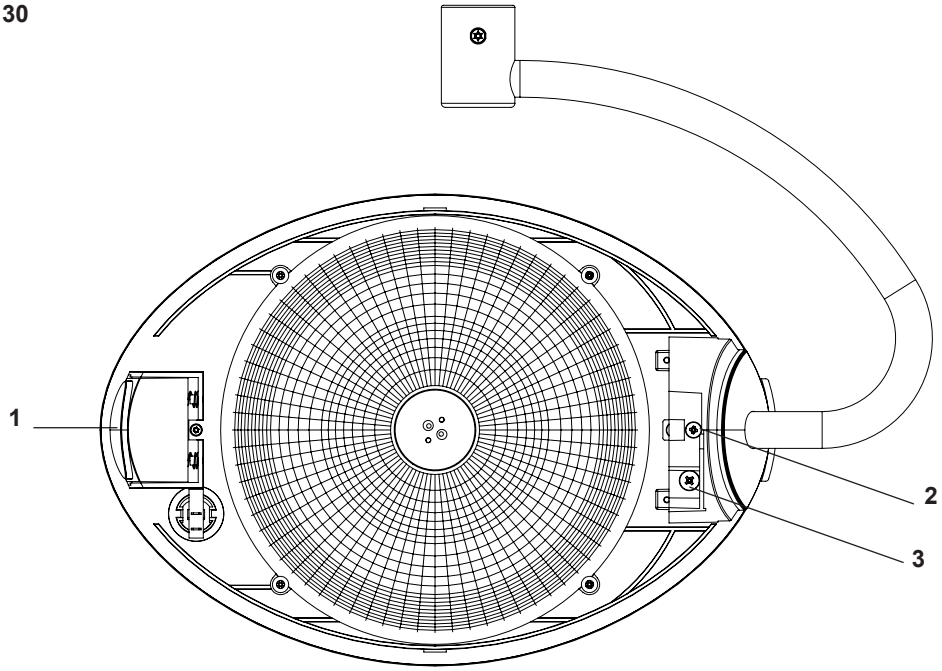


Figure 35

1 Locking tab

2 Brake screw

3 Retaining screw (do not loosen)

BLUE 80

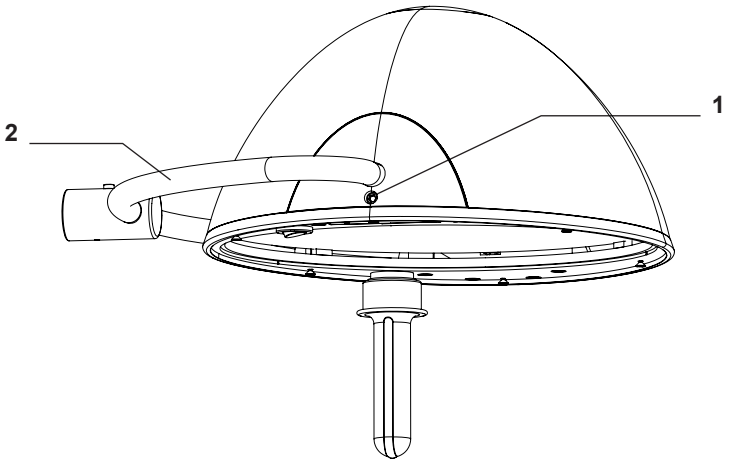


Figure 36

1 Brake screw

2 Lighthead fork

3.6 Adjusting the lighthead brake

The lighthead brakes are adjusted during installation. Brakes, like all mechanical parts, are subject to wear. If the lighthead no longer remains steady in all positions the brake must be readjusted.

The light unit becomes hot during operation. Allow it to cool down before adjusting the brake.

BLUE 30 lighthead

Figure 35

- Turn off the BLUE 30 lighthead and allow it to cool down.
- Press the locking tab (1) to remove the bezel.
- Adjust the lighthead braking by tightening or loosening the brake screw (2). The retaining screw (3) holds the lighthead in place and must not be loosened.
- Close the cover and check that the locking tab clicks audibly into place.
- Check that the cover is correctly in place.

BLUE 80 lighthead

Figure 36

- Turn off the BLUE 80 lighthead and allow it to cool down.
- Adjust the lighthead braking by tightening or loosening the brake screw (1) above the lighthead fork (2).

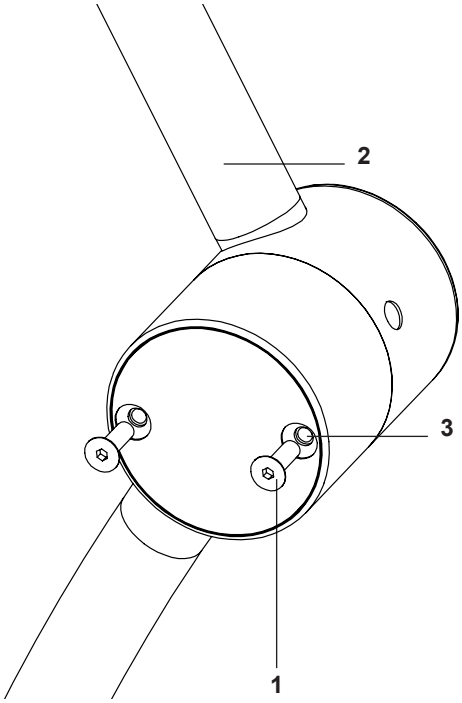


Figure 4

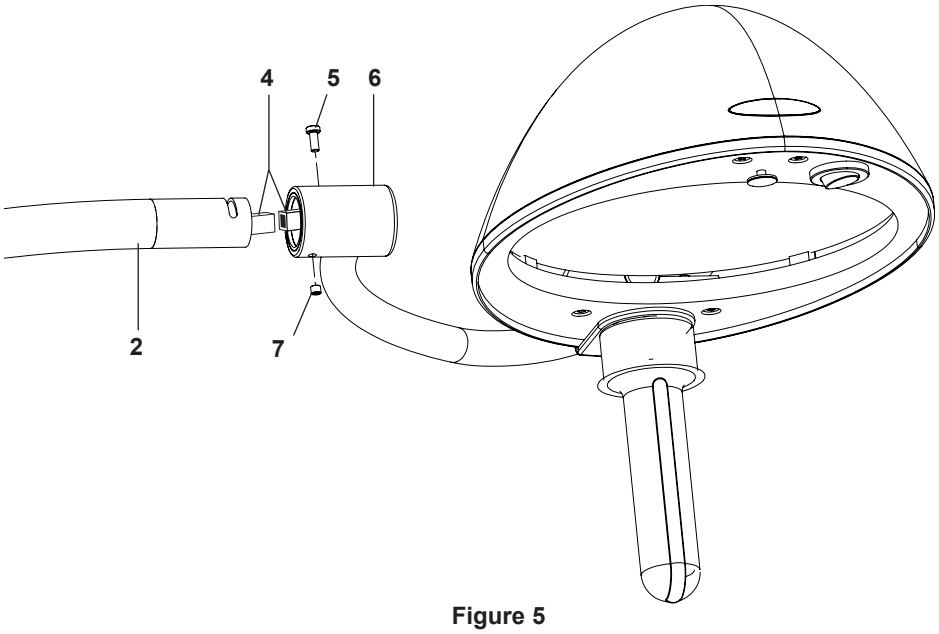


Figure 5

3.7 Removing and installing the BLUE 80 lighthead

If the spring arm is not disabled when removing the lighthead, the arm may spring up abruptly and present a hazard.
- Lower the spring arm and lock it in a safe position when installing the lighthead.
- Assemble in the correct order: first install the lighthead then enable the arm.
- Place the arm in the topmost position when removing the lighthead.
- Keep clear of the spring arm when enabling it.

Removing the BLUE 30 lighthead

Figure 4

- Place the spring arm (2) in the top position.
- Remove the two taper-head hex socket screws (1) to disable the spring arm.

Figure 5

☞ The hex socket screw (5) is a safety screw* that must be replaced each time the unit is reassembled.

- Unscrew the hexagon socket screw (5).
- Unscrew the brake screw (7).
- Remove the fork (6) from the spring arm and separate the connectors (4).

Reinstalling the BLUE 30 lighthead

Figure 4

☞ The spring arm must be disabled before installing the BLUE 30 lighthead.

- To disable the spring arm, unscrew the two taper-head hex socket screws (1).

Figure 5

- Secure the connectors (4).

☞ The hex socket screw (5) is a safety screw that must be replaced each time the unit is reassembled.

- Insert the fork (6) in the spring arm (2) such that the hole in the spring arm lines up with the hole in the fork.
- Lock the fork in place with the hex socket safety screw (5).
- Use a flat screwdriver to tighten the brake screw (7).

Figure 4

- To enable the spring arm, tilt the lighthead and spring arm (2) upwards until the holes (3) line up with the tappings (3).
- Install the two taper-head hex socket screws (1).

* Safety screws are available in packs of 5 (3 690 51 555).

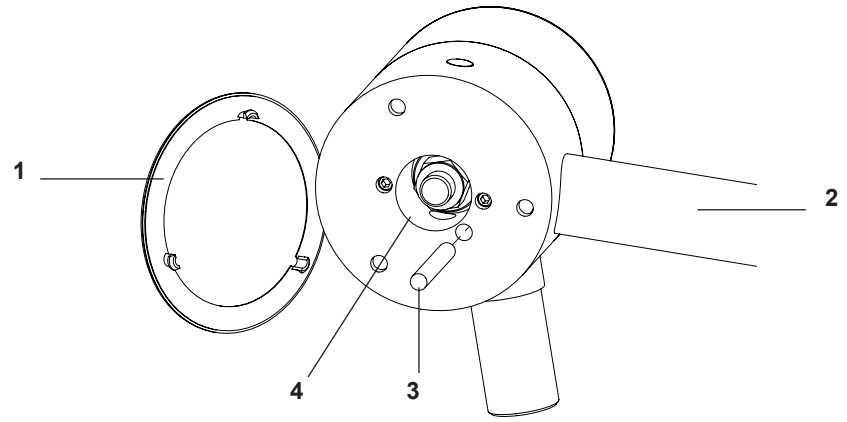


Figure 9

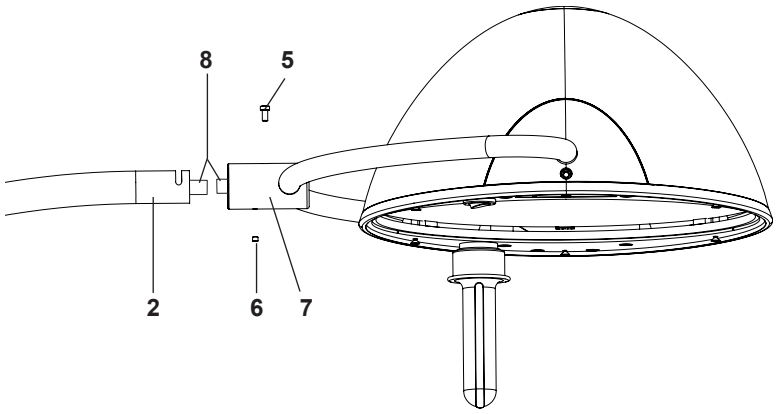


Figure 10

3.8 Removing and installing the BLUE 80 lighthead

The order of disassembly is important:
If the spring arm is not disabled when disassembling the BLUE 80 lighthead, the arm may spring up abruptly and present a hazard. The first step is therefore to disable the spring arm.

Disabling the BLUE 80 spring arm

Figure 9

- Remove the bezel (1) from the mobile side of the spring arm (2).
- Pivot the spring arm down to the floor and insert the locking pin (3) in hole (4).

If the locking pin is not inserted deeply enough in the hole the spring arm may spring up abruptly and present a hazard.
Check that the spring arm correctly locked in place before releasing it.
Only use the supplied locking pin.

Removing the BLUE 80 lighthead

Figure 10

☞ The hex socket screw (5) is a safety screw that must be replaced each time the unit is reassembled.

- Unscrew the hexagon socket screw (5).
- Unscrew the brake screw (6).
- Remove the fork (7) from the spring arm and separate the connectors (8).

Reinstalling the BLUE 80 lighthead

Figure 10

- Secure the connectors (8).

☞ The hex socket screw (5) is a safety screw* that must be replaced each time the unit is reassembled.

- Insert the fork in the spring arm such that the hole in the fork lines up with the hole in the ring.
- Lock the fork in place using the shakeproof hex socket screw (5) and the brake screw (6).

Enabling the BLUE 80 spring arm

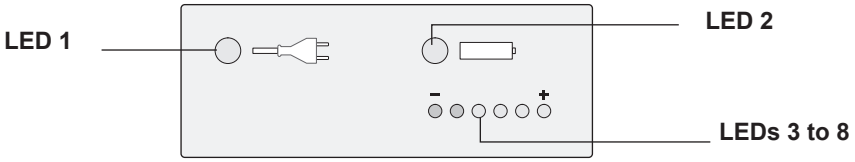
Figure 9

- Lower the spring arm (2) and lighthead slightly by pressing on it.
- Remove the locking pin (3).
- Install the bezel (1) and check that it is correctly in place.

* Safety screws are available in packs of 5 (3 690 52 555).

3.9 Checking the BLUE 30/80 HOSPITAL

To ensure that the surgical light will operate correctly in the event of a power failure it must be checked before each use.



Check	Mains LED 1	Batteries LED 2	Charging LEDs 3 to 8	Comment
Plug the light into the power outlet and turn it on	LED green	LED off	LEDs 3 to 8 scrolling	Batteries charging
			LED 8 flashes	Batteries completely charged
Disconnect the power outlet (the light should remain on)	LED off	LED yellow	One of LEDs 3 to 8 lit (battery charge level)	Operation on batteries

Testing the autonomy of the batteries in the BLUE 30/80 HOSPITAL light

To guarantee that the light will operate correctly in the event of a power cut, the battery autonomy must be checked at least once a year, as part of preventive maintenance work.

Check	Mains LED 1	Batteries LED 2	Charging LEDs 3 to 8	Comment
Turn off the light and charge the batteries for at least 14 hours	LED green	LED off	LEDs 3 to 8 scrolling	Batteries charging
			LED 8 flashes	Batteries completely charged
Turning on the light	LED green	LED off	LEDs 3 to 8 scrolling	Batteries charging
			LED 8 flashes	Batteries completely charged
Disconnect the power outlet (the light should remain on)	LED off	LED yellow	One of LEDs 3 to 8 lit (battery charge level)	Operation on batteries
BLUE 30: After 1 hour's battery operation	LED off	LED yellow	One of LEDs 3 to 8 lit (battery charge level)	Operation on batteries
BLUE 80: After 4 hours' battery operation				
Connect the power outlet	LED green	LED off	LEDs 3 to 8 scrolling	Batteries charging

Anomalies

Operation	Anomaly	Likely cause	Corrective action
On power outlet (light on)	LED 1 not lit green	Electronic fault	Call Maquet technical department
	LED 2 lit yellow	Mains fuse missing or blown	Change the fuse
	LED 1 flashes red	Charging circuit safety fuse fault	Change the fuse (quick-blow automotive type, 7.5 A/32 V)
	LEDs 3 to 8 not scrolling; LED 8 not lit	Electronic fault	Call Maquet technical department
On batteries (light on)	LED 2 not lit yellow	Electronic fault	Call Maquet technical department
	None of LEDs 3 to 8 lit	Electronic fault	Call Maquet technical department
	The light goes out when the power outlet is disconnected	Batteries faulty or incorrectly connected	Check the connections and change the batteries if necessary
		Charging circuit safety fuse fault	Change the fuse (quick-blow automotive type, 7.5 A/32 V)
		Electronic fault (charger board)	Call Maquet technical department
	LED 4 flashes	Batteries discharged	Recharge batteries
	LED 3 lit red LED 1 lit red	Batteries close to deep discharge	Recharge batteries urgently

☞ No warning is provided if the batteries are completely discharged or out of order. The fault may be checked by disconnecting the power outlet. No indicators are lit in this case.

4 MAINTENANCE PROCEDURES

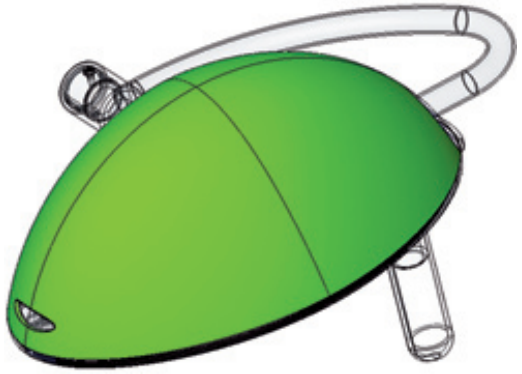
Required tools

- Cross-head screwdriver
- Torx screwdriver
- Allen wrench

4.1 BLUE 30

4.1.1 Removing the BLUE 30 lighthead cover

- Press the tab.
- Lift the cover.



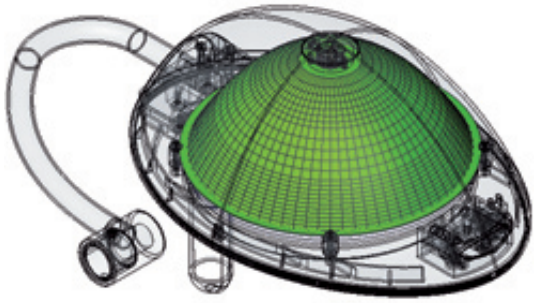
4.1.2 Reinstalling the BLUE 30 lighthead cover

- Proceed in reverse order.

> ⚠ Check that the tab is correctly located.

4.1.3 Replacing the reflector subassembly

- Remove the BLUE 30 lighthead cover.
- Disconnect and remove the lamp bracket.
- Unscrew and remove the four screws and washers.
- Remove the reflector subassembly.

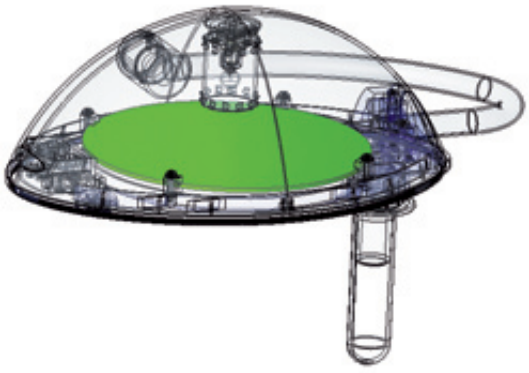


> ⚠ The spacers (and lens) may adhere to the reflector slightly.

- Install the new reflector subassembly on the spacers.
- Put the screws in place.
- Tighten the screws.
- Connect and position the lamp bracket.
- Reinstall the BLUE 30 lighthead cover.

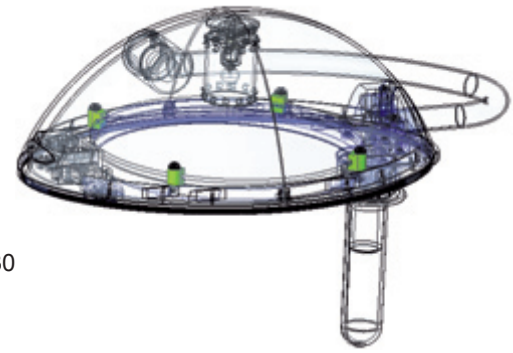
4.1.4 Replacing the lens

- Remove the BLUE 30 lighthead cover.
- Remove the reflector subassembly.
- Remove the lens.
- Remove the four spacers from the lens.
- Take the new lens and place the four spacers 90° apart.
- Place this assembly on the base of the BLUE 30 lighthead.
- Reinstall the reflector subassembly.
- Reinstall the lamp bracket.
- Reinstall the BLUE 30 lighthead cover.



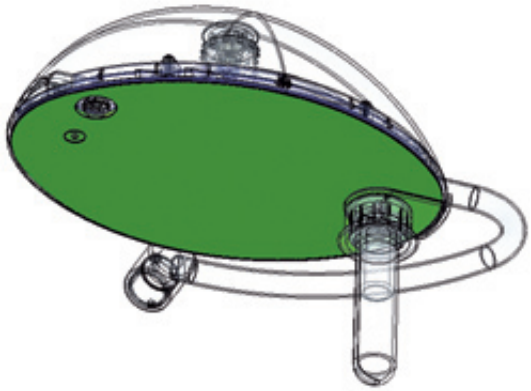
4.1.5 Replacing the spacers

> Always change the four spacers at the same time.



- Remove the BLUE 30 lighthead cover.
- Remove the reflector subassembly.
- Remove the lens.
- Remove the four spacers.
- Place the four new spacers 90° apart on the lens.
- Place this assembly on the base of the BLUE 30 lighthead.
- Reinstall the reflector subassembly.
- Reinstall the lamp bracket.
- Reinstall the BLUE 30 lighthead cover.

4.1.6 Replacing the underside



- Remove the BLUE 30 lighthead cover.
- Loosen the brake screw.
- Loosen the screw to allow the fork to slide.
- Unscrew the screw.
- Remove the sterilisable handle bracket.

> The handle bracket may fall.

- Remove the screw.
- Remove the underside (with plastic washer and clip).

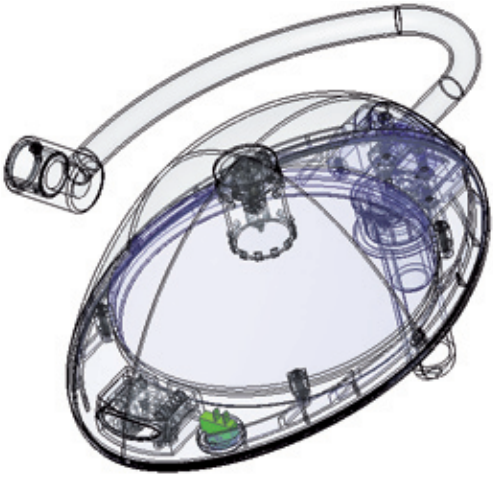
> The underside may fall.

- Put the new underside in place.
- Re-attach the side with the clip.
- Install the sterilisable handle bracket.
- Tighten the screw holding the sterilisable handle bracket.
- Reposition the fork in the base of the BLUE 30 lighthead.
- Tighten the limit stop screw.

> Check that it is correctly in place.

- Tighten the brake screw.
- Reinstall the BLUE 30 lighthead cover.

4.1.7 Replacing the switch

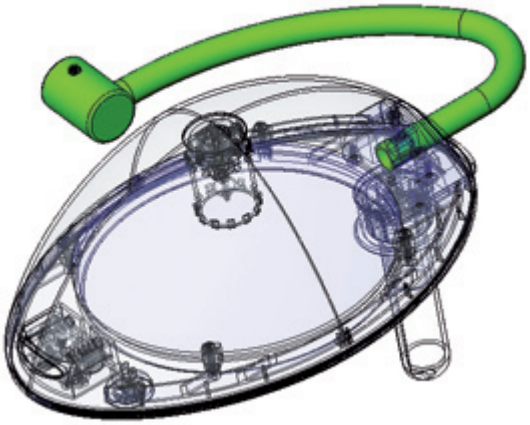


- Remove the BLUE 30 lighthead cover.
- Remove the switch, separating the pivoting head from the rest of the switch.
- Disconnect the switch from the connectors.
- Connect the new switch.

> The wires are colour-coded.

- Separate the pivoting head to put the switch in place.
- Reinstall the BLUE 30 lighthead cover.

4.1.8 Replacing the fork



> The spring arm may spring up sharply.

- Remove the lighthead from the spring arm.
- Remove the BLUE 30 lighthead cover.
- Disconnect the connector connected to the lamp bracket.
- Disconnect the connectors from the switch.
- Unscrew the brake screw to release the fork.
- Unscrew the limit stop screw.
- Remove the fork from the base of the BLUE 30 lighthead along with the wiring.
- Slide the wiring through first.
- Position the fork in the base of the BLUE 30 body.
- Tighten the limit stop screw.

> Check that it is correctly in place.

- Tighten and adjust the brake screw.
- Connect the connectors to the switch.

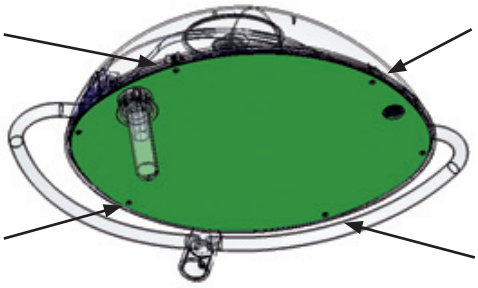
> The wires are colour-coded.

- Connect the connector to the lamp bracket.
- Reinstall the BLUE 30 lighthead cover.

4.1.9 Replacing the lamp bracket

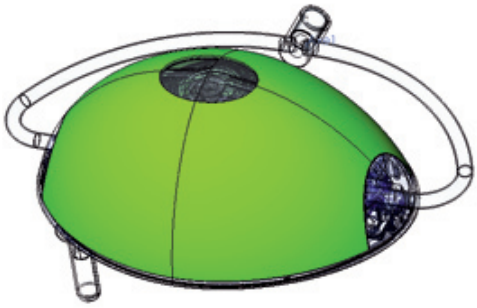
- Remove the BLUE 30 lighthead cover.
- Disconnect the lamp bracket.
- Remove the lamp bracket from the reflector subassembly.
- Connect the new lamp bracket.
- Place the lamp bracket on the reflector.
- Reinstall the BLUE 30 lighthead cover.

4.2 BLUE 80



4.2.1 Removing the BLUE 80 lighthead cover

- Remove the four central screws from the underside.
- Remove the BLUE 80 cover.

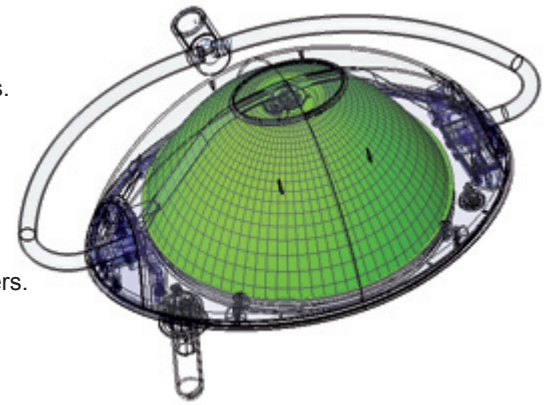


4.2.2 Reinstalling the BLUE 80 lighthead cover

- Put the BLUE 80 cover in place.
- Tighten the four screws.

4.2.3 Replacing the reflector subassembly

- Remove the BLUE 80 cover.
- Remove the lamp brackets from the reflector.
- Unscrew and remove the four screws and washers.
- Remove the reflector subassembly.

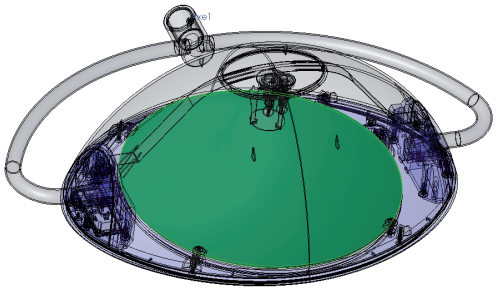


Avoid touching the inside of the reflector.

- Install the new reflector subassembly on the spacers.

Ensure that it is correctly oriented relative to the fork.

- Put the screws in place and tighten them.
- Put the lamp brackets back in position.
- Reinstall the BLUE 80 cover.



4.2.4 Replacing the lens

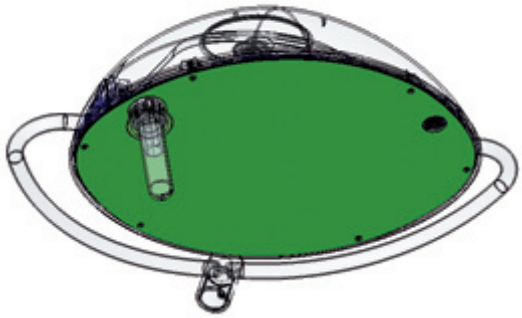
- Remove the BLUE 80 cover.
- Remove the reflector subassembly.
- Remove the lens.
- Remove the four spacers from the lens.
- Take the new lens and put the four spacers in place.
- Place the assembly on the base of the BLUE 80.
- Reinstall the reflector subassembly.
- Reinstall the lamp brackets.
- Reinstall the BLUE 80 cover.

4.2.5 Replacing the spacers

> Always change the four spacers at the same time.

- Remove the BLUE 80 cover.
- Remove the reflector subassembly.
- Remove the lens.
- Remove the four spacers from the lens.
- Put the four new spacers in place.
- Place the assembly on the base of the BLUE 80.
- Reinstall the reflector subassembly.
- Reinstall the lamp brackets.
- Reinstall the BLUE 80 cover.

4.2.6 Replacing the underside



- Remove the six visible screws from the underside.

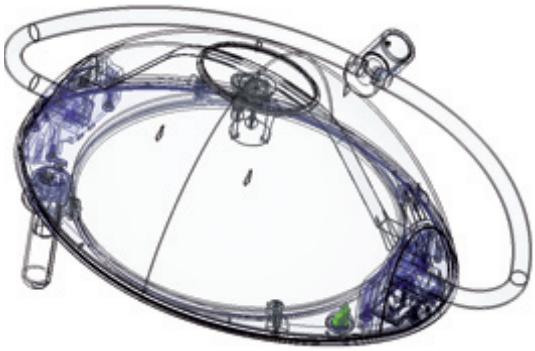
> Four of these six screws hold the cover in place. It may fall after they are removed.

- Remove the two screws from the sterilisable handle bracket.

> The underside may fall.

- Put the new underside in place.
- Install the sterilisable handle bracket.
- Tighten the screws holding the sterilisable handle.
- Tighten the six visible screws on the underside.
- Ensure that the two short screws are placed at the join with the ends of the fork.
- Reinstall the BLUE 80 cover.

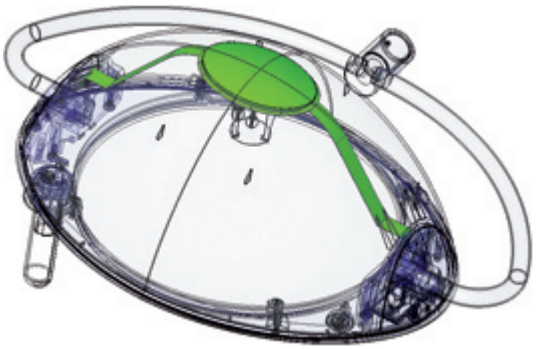
4.2.7 Replacing the switch



- Remove the BLUE 80 cover.
- Remove the switch, separating the pivoting head from the rest of the switch.
- Disconnect the connectors from the switch.
- Connect the new switch.
- Separate the pivoting head to put the switch in place.
- Reinstall the BLUE 80 cover.

4.2.8 Replacing the flap

- Remove the BLUE 80 cover.
- Remove the reflector subassembly.



> Take care not to let the lens fall.

- Unscrew the two screws holding the flap.
- Check the flap.
- Put the new flap in place.
- Tighten the two screws holding the flap.
- Reinstall the reflector subassembly.
- Reinstall the BLUE 80 cover.

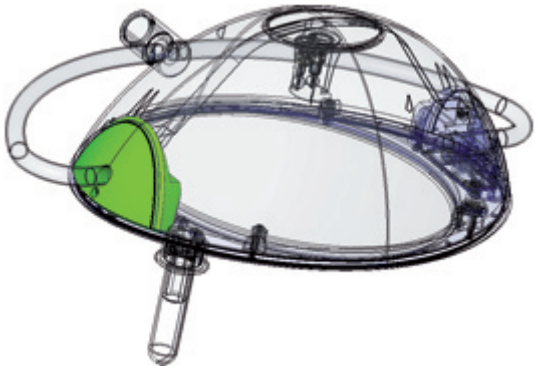
4.2.9 Replacing the fork bracket

- Remove the BLUE 80 cover.
- Remove the reflector subassembly.
- Remove the flap.

  Remove the lens to avoid it falling by accident.
- Remove the underside.
- If both fork brackets are to be replaced, remove and reinstall one fork at a time.

Left side:

- Unscrew (but do not remove) the screw from the limit stop.
- Remove the four screws.
- Remove the fork bracket from the base and from the fork.
- Install the new fork bracket.



> Check that the limit stop screw, brake screw and nut are in place on the new fork bracket.

- Tighten the four screws holding the fork bracket to the base.
- Position the fork bracket correctly in the fork.
- Tighten the limit stop screw.

Right side:

- Remove the switcher board from its slot.
- Disconnect the wires from the board.
- Remove the four screws.
- Remove the fork bracket from the base of the fork.
- Install the new fork bracket.

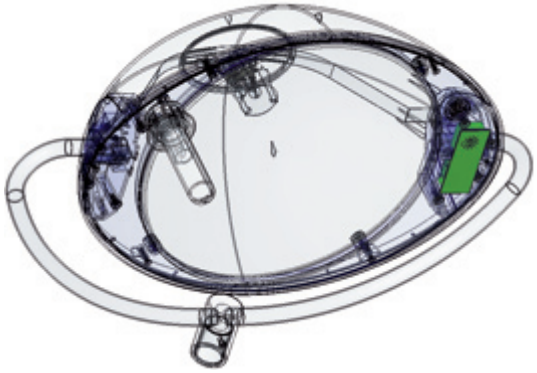
> Check that the brake screw and nut are in place on the new fork bracket.

- Tighten the four screws holding the fork bracket to the base.

> Ensure that all cables are in place before tightening.

- Connect the wires to the switcher board.
- Place the switcher board in its slot.
- Reinstall the underside.
- Reinstall the flap.
- Reinstall the lens.
- Reinstall the reflector subassembly.
- Reinstall the BLUE 80 cover.

4.2.10 Replacing the switcher board

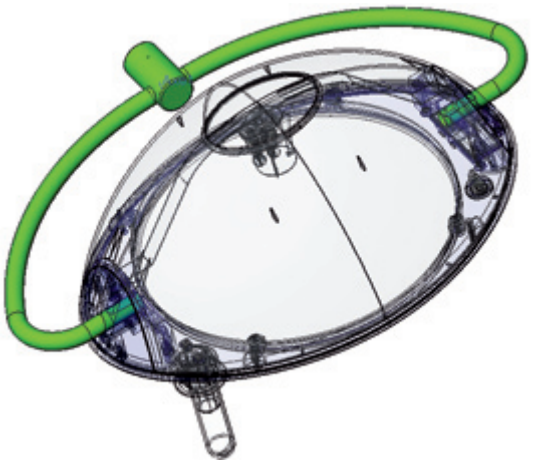


- Remove the BLUE 80 cover.
- Remove the underside.
- Remove the switcher board from its slot.
- Disconnect the wires.
- Connect the wires to the new switcher board.
- Place the switcher board in its slot.
- Reinstall the underside.
- Reinstall the BLUE 80 cover.

4.2.11 Replacing the lamp brackets

- Remove the BLUE 80 cover.
- Remove the underside.
- Disconnect the connectors from the lamp brackets.
- Unscrew (but do not remove) the screws holding the fork bracket, to release the cables to the new lamp brackets on the switcher board.
- Connect the new lamp bracket connectors to the switcher board.
- Place the switcher board in its slot.
- Reinstall the underside.
- Reinstall the BLUE 80 cover.

4.2.12 Replacing the fork



- Remove the lighthead from the spring arm.

> ⚠ Take care as the spring arm may spring up.

- Remove the BLUE 80 cover.
- Remove the underside.
- Remove the reflector subassembly.
- Remove the lens (and spacers).
- Remove the flap.
- Remove the fork brackets.
- Remove the fork.
- Take the new fork.
- Reinstall the fork brackets and fork on the base of the lighthead.
- Reinstall the underside.
- Reinstall the lens.
- Reinstall the flap.
- Reinstall the reflector subassembly.
- Reinstall the BLUE 80 cover.

> ⚠ Ensure that the limit stop screw fits properly into the slit. Do not overtighten.

- Reinstall the lighthead on the spring arm.

5 SPARE PARTS AND MAINTENANCE KITS

5.1 BLUE 30 spare parts and maintenance kits

The quantities listed are those included in the kit.

Part number	Description	Quantity
5 690 03 039	**BLUE 80/30 single 850 cable**	**1**
5 690 03 040	**BLUE 80/30 duo 1000 cable**	**1**
5 690 10 106	**BLUE 30-80 wall-mounting cover**	**1**
5 690 03 038	**BLUE 80/30 850 cable**	**1**
5 690 10 102	**BLUE 30 spring arm cap**	**1**
5 605 17 82	**50-ZIO x 35.5 caster with brake (set of 2)**	**2**
5 605 17 84	**Assembly kit for 3/5 legs**	
	M8 x 35 CHc screw DIN 912	5
	8.4 mm star washer DIN 6797	5
	M8 x 22 CHc screw DIN 912	1
	M8 nut DIN 934	5
5 690 14 026	BLUE 30 stand star section	1
3 690 57 555	**Set of 10 5x20 3.15 A quick-blow fuses**	10
5 607 52 05	**Mains cable (Europe)**	1
5 607 52 05	**Mains cable (US)**	1
5 690 05 624	**BLUE 30 body**	**1**
3 690 03 997	**BLUE 30 reflector S/A**	
5 690 05 004	BLUE 30 Reflector	1
5 690 05 021	Spring blanking plate - machined	1
6 000 80 306	Pan-head cross-head screw - 6 lobes - zinc-plated steel - M3 x 6	4
5 690 05 024	BLUE 30 glass tube	1
5 690 05 020	Spring blanking plate	1
6 566 00 011	Spring bush - hex socket - stainless steel - M4 x 9	4
6 014 10 402	H 0.8 M4 nut - stainless steel	1
5 690 05 070	Bracket	1
3 690 40 555	**BLUE 30 spacer kit**	
5 690 05 060	BLUE 30 spacer	4
6 009 90 040	Plastic raised countersunk head screw - Pozidriv - L 20 - Ø 4	4
6 023 70 043	Flat washer - Ø8 - Ø4.3 - thickness 0.5 mm - zinc-plated steel	4
3 690 50 555	**BLUE 30 underside replacement kit**	
5 690 05 002	Underside	1
5 665 31 87	Plastic washer	1
5 607 72 72	Clip	1
6 000 80 306	Pan-head cross-head screw - 6 lobes - zinc-plated steel - M3 x 6	1
6 024 20 306	Flat washer - Ø6 - Ø3.2 - thickness 0.5 mm - zinc-plated steel	1

3 690 51 555 6 007 70 410	**Set of BLUE 30 safety screws (pack of 5)** Low-profile pan head Torx screw - M4 x 10 - stainless steel	 5
5 690 05 034	**BLUE 30 - lens**	**1**
5 605 17 83	**Caster 50 210 - 35.5 (pack of 2)**	**2**
5 605 31 53	**3-track brushes**	**1**
5 690 10 104	**Bumper**	1
3 693 01 555	**Pack of 10 miniature 7.5 A 32 V quick-blow fuses**	**10**
3 643 02 555	**BLUE plastic ring with bearings**	**1**
3 690 08 998	**Diode bridge kit**	
3 693 06 555	**BLUE 30 wall/ceiling-mounted adjustable power supply**	
3 693 07 555	**BLUE 30 MOBILE adjustable power supply (Europe)**	
3 693 08 555	**BLUE 30 MOBILE adjustable power supply (US)**	
3 693 03 555	**BLUE 30/80 HOSPITAL power supply**	
3 690 09 997	**New B30 fork S/A**	

5.2 BLUE 80 spare parts and maintenance kits

Part number	Description	Quantity
5 690 03 039	**BLUE 80/30 single 850 cable**	**1**
5 690 03 040	**BLUE 80/30 duo 1000 cable**	**2**
5 690 10 106	**BLUE 30-80 wall-mounting cover**	**1**
5 690 42 999	**BLUE 80 wall/ceiling-mounted spring arm**	**1**
5 690 03 038	**BLUE 80/30 850 cable**	**1**
3 690 10 997	**BLUE 80 MOBILE mains cable loom S/A**	
5 690 03 031	Wiring	1
6 914 00 095	KEC mains connector (BLUE 30/80)	1
6 890 04 520	2-pole fuse drawer without mains cut-out	1
5 601 89 21	Sleeve	1
6 936 00 020	5x20 3.15 A quick-blow fuse	2
3 690 57 555	**Set of 10 5x20 3.15 A quick-blow fuses**	
3 690 11 997	**BLUE 80 MOBILE power supply cable outlet loom**	
6 887 00 02	Ferrite	1
5 690 03 029	BLUE 80 power supply cable outlet	1
5 607 52 05	**Mains cable (Europe)**	1
5 607 52 05	**Mains cable (US)**	1
5 690 10 100	**BLUE 80 spring arm cap**	**1**
5 690 05 035	**BLUE 80 - lens**	**1**
5 601 97 05	**Switch assembly**	**1**
5 690 03 016	**Circuit board**	**1**
3 690 04 997	**BLUE 80 reflector S/A**	
5 690 05 042	Painted bezel	1
5 690 05 041	Bezel bracket	3
6 000 80 306	Pan-head cross-head screw - 6 lobes - zinc-plated steel - M3 x 6	3
5 690 05 005	BLUE 80 - reflector	1
5 690 05 080	Bracket	1
6 566 00 011	Spring bush - hex socket - stainless steel - M4 x 9	1
6 014 10 402	H 0.8 M4 nut - stainless steel	1
3 690 42 555	**BLUE 80 spacer kit**	
5 690 05 061	BLUE 80 spacer	4
6 009 90 041	Plastic raised countersunk head screw - Pozidriv - L 20 - Ø 5	4
6 021 81 652	Flat washer - Ø16 - Ø5.3 - thickness 1 mm - stainless steel	4
3 690 54 555	**BLUE 80 flap kit**	
5 601 95 21	Plastic raised countersunk head screw - Pozidriv - L 8 - Ø 5	2
5 690 05 630	BLUE 80 flap assembly	1

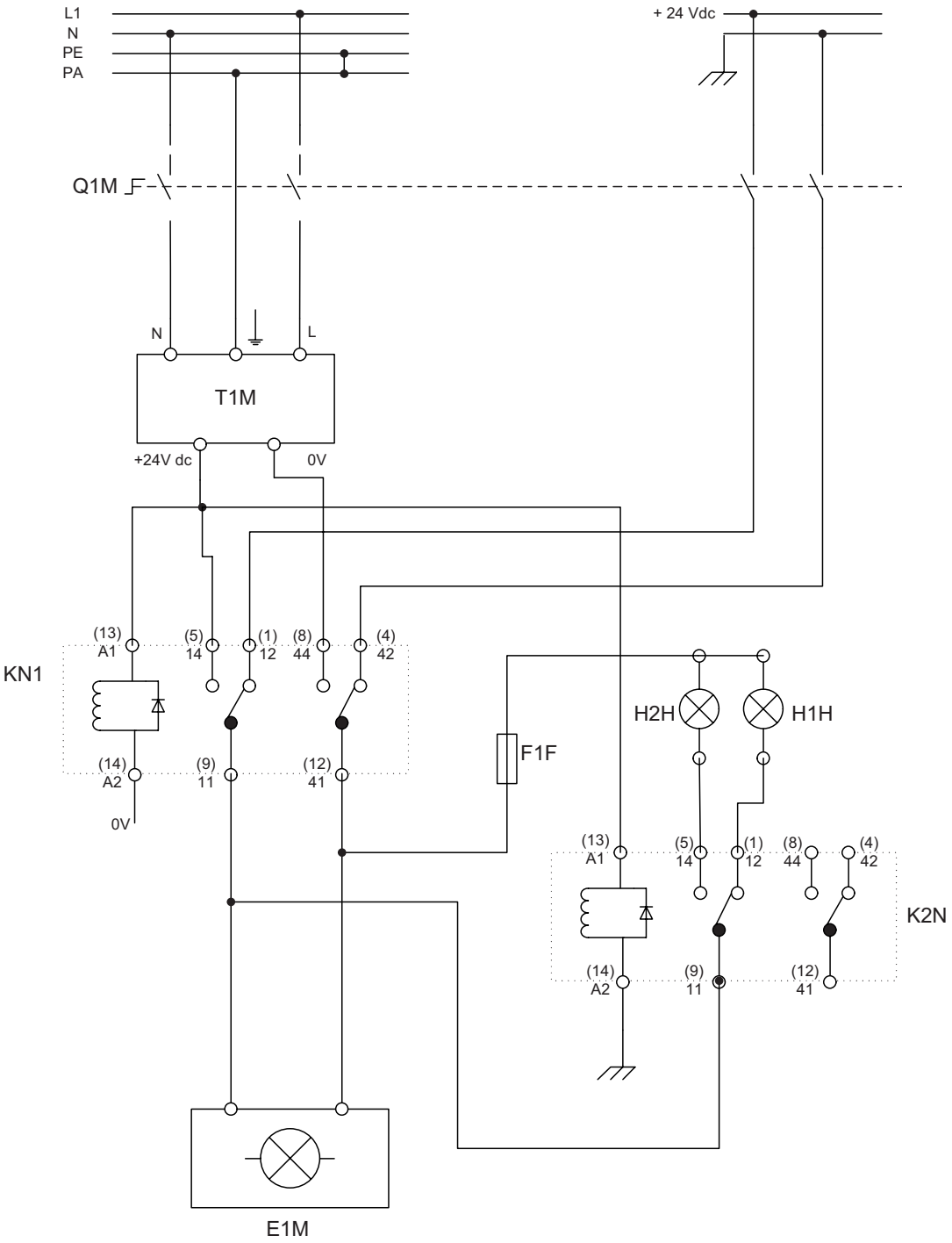
3 690 53 555	**Fork bracket kit**	
5 690 05 616	BLUE 80 fork bracket	1
5 665 20 68	Square nut 10x10 - M6 - thickness 5 mm	1
5 607 73 04	Modified screw	1
5 665 04 70	Raised countersunk head screw - Pozidriv - M4 x 8	1
3 690 52 555	**Set of BLUE 80 safety screws (pack of 5)**	
6 012 40 510	Low-profile pan head Torx screw - M5 x 10 - stainless steel (x5)	1
3 690 55 555	**BLUE 80 handle bracket kit**	
5 690 05 621	BLUE 80 sterilisable handle bracket - assembled	1
6 009 50 430	Pan head screw - 6 lobes - stainless steel - M4 x 30	2
3 690 08 999	**Fork S/A**	
5 690 03 015	BLUE 80 fork cable kit	
5 607 78 57	BLUE 80 fork ring	1
6 005 80 504	Hex socket set screw - M5 x 4 - stainless steel	1
6 012 40 510	Low-profile pan head Torx screw - M5 x 10 - stainless steel (x5)	1
5 690 05 515	Fork	1
3 690 05 999	**Spare bulb holder**	
5 690 03 012	B80 halogen socket, wired	1
5 690 05 082	Socket bracket 80 - 2	1
6 012 50 312	Pan head screw - 6 lobes - M3x12 - stainless steel	2
3 690 06 997	**Main bulb holder**	
5 690 03 012	B80 halogen socket, wired	1
5 690 05 081	Socket bracket 80 - 1	1
6 012 50 312	Pan head screw - 6 lobes - M3x12 - stainless steel	2
5 605 31 53	**3-track brushes**	**1**
5 690 10 104	**Bumper**	1
3 693 01 555	**Pack of 10 miniature 7.5 A 32 V quick-blow fuses**	**10**
3 643 02 555	**BLUE plastic ring with bearings**	**1**
3 690 08 998	**Diode bridge kit**	
3 693 05 555	**BLUE 80 wall/ceiling-mounted power supply**	
3 693 04 555	**BLUE 80 MOBILE power supply**	
3 693 03 555	**BLUE 30/80 HOSPITAL power supply**	
3 693 07 555	**Pack of 5 x 6.3 A fuses for B80 circuit board**	

6 ELECTRICAL INSTALLATION

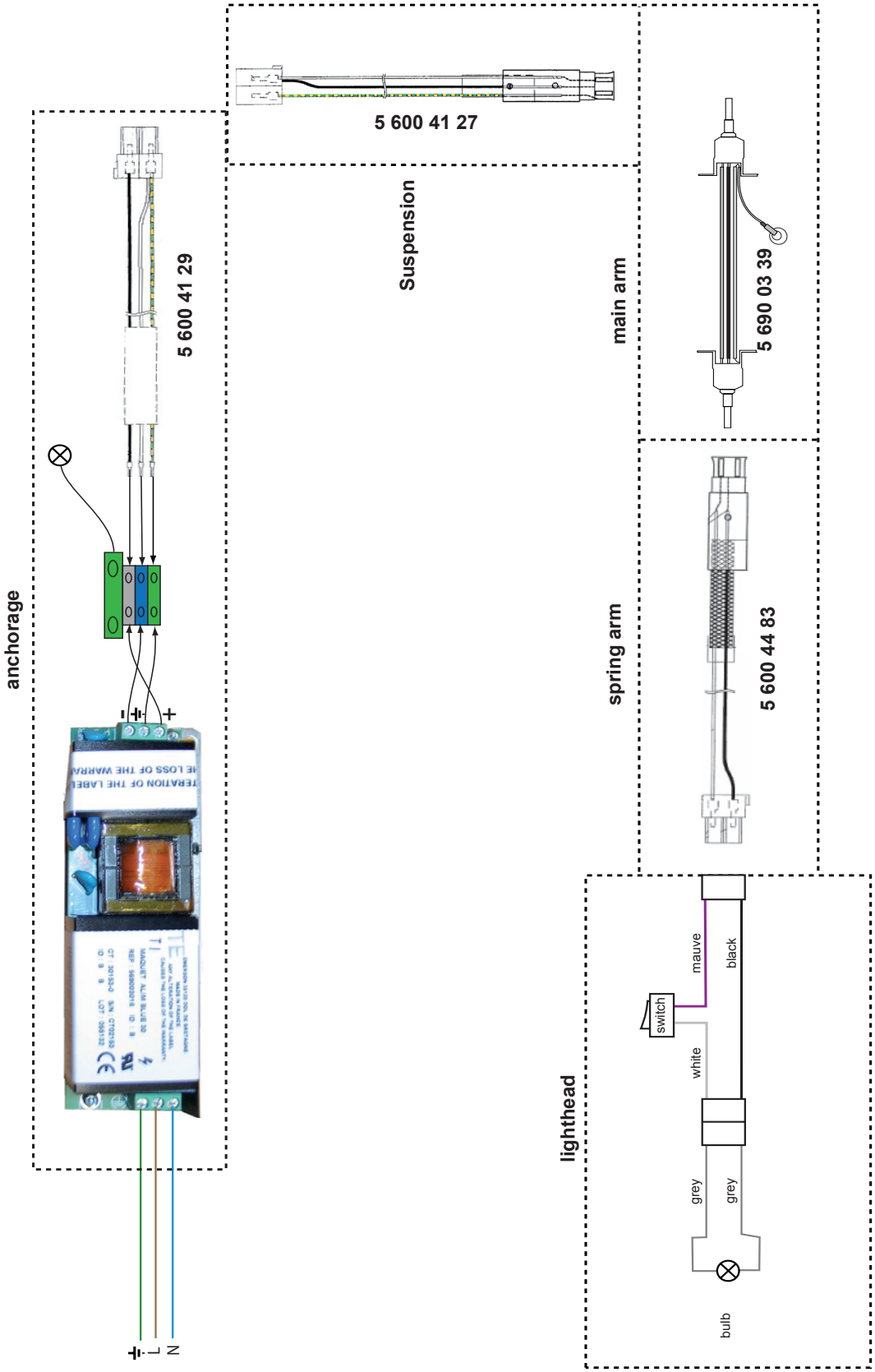
6.1 Suggested electrical installation

Installation components	
E1M	BLUE 30 or BLUE 80 lighthead
F1F	Fuse for indicators
K1N + K2N	Voltage control relay
Q1M	Main switch
T1M	power supply
H1H	Red LED, backup supply operating
H2H	Green LED, main power supply operating

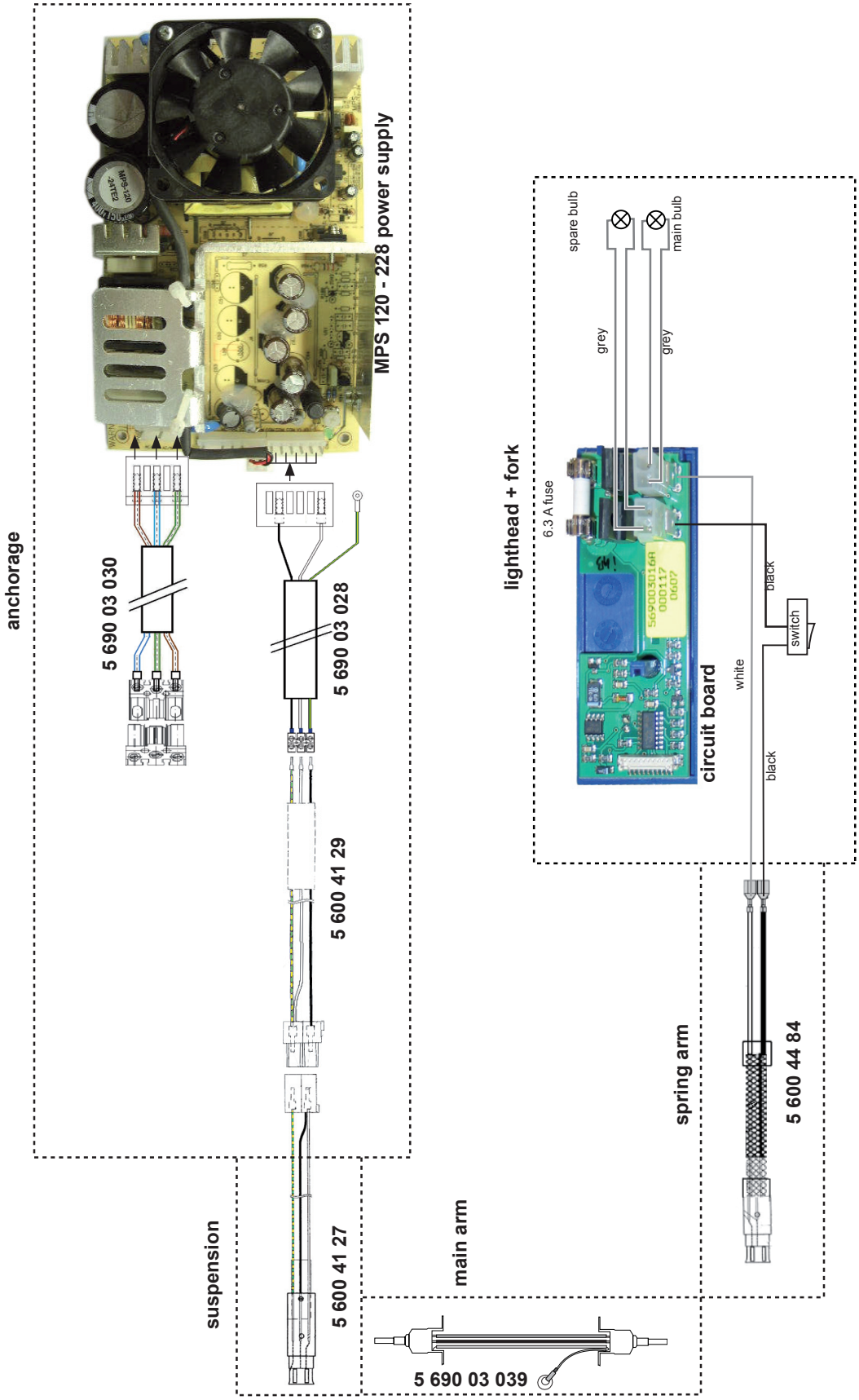
Technical characteristics of components			
Component	**Technical characteristics**		**Part number**
K1N + K2N Measurement relays	24 V DC		ARD 6 886 00 220
T1M	BLUE 30	100-230 V 50/60 Hz 70 VA	ARD 5 690 03 018
	BLUE 80	100-230 V 50/60 Hz 120 VA	ARD 5 690 39 999


L1
N
PE
PA
+ 24 Vdc
Q1M
N
L
T1M
+24V dc
0V
KN1
(13) A1
(5) 14
(1) 12
(8) 44
(4) 42
(14) A2
(9) 11
(12) 41
0V
F1F
H2H
H1H
K2N
E1M

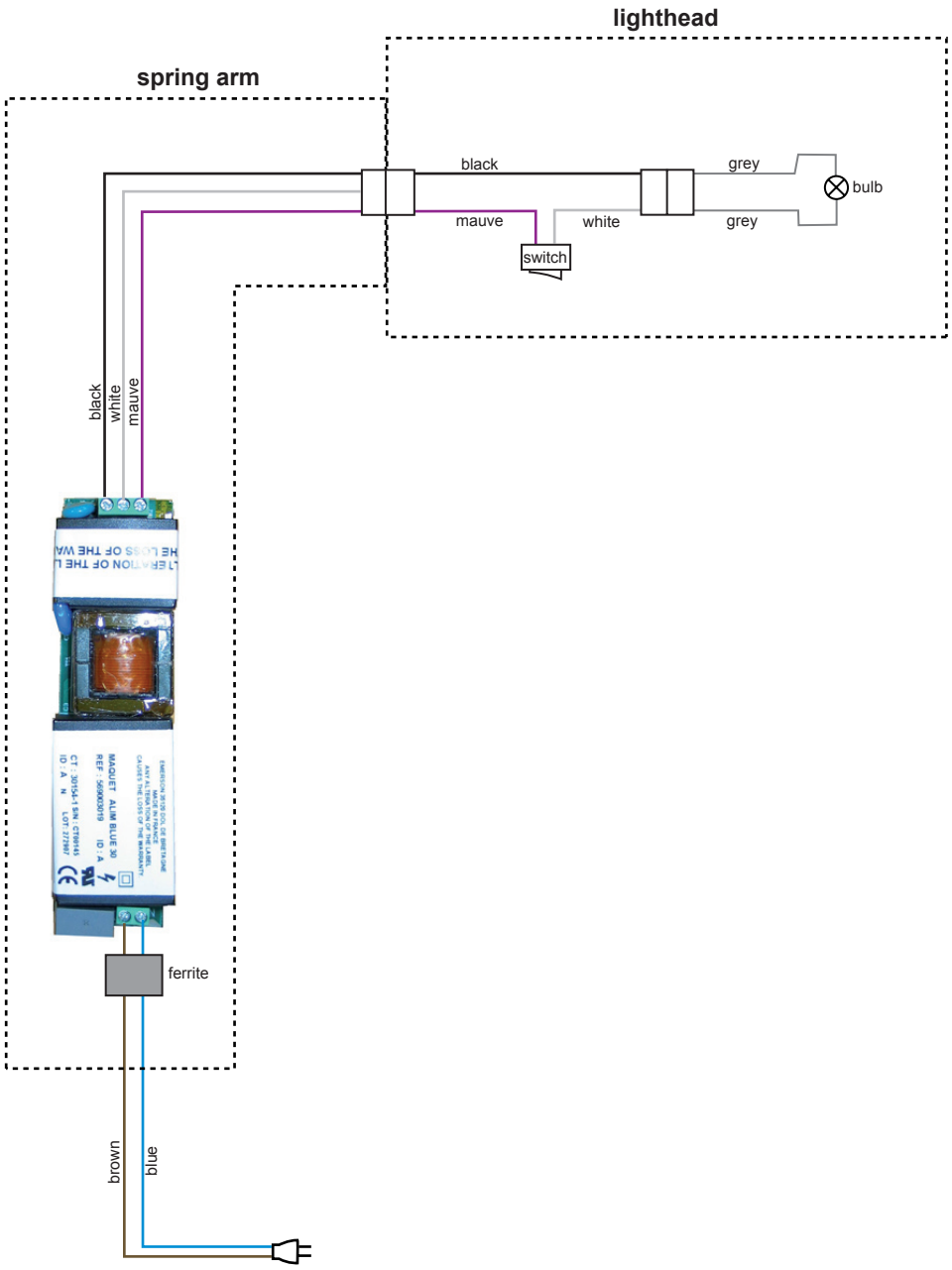
6.2 Ceiling-mounted BLUE 30



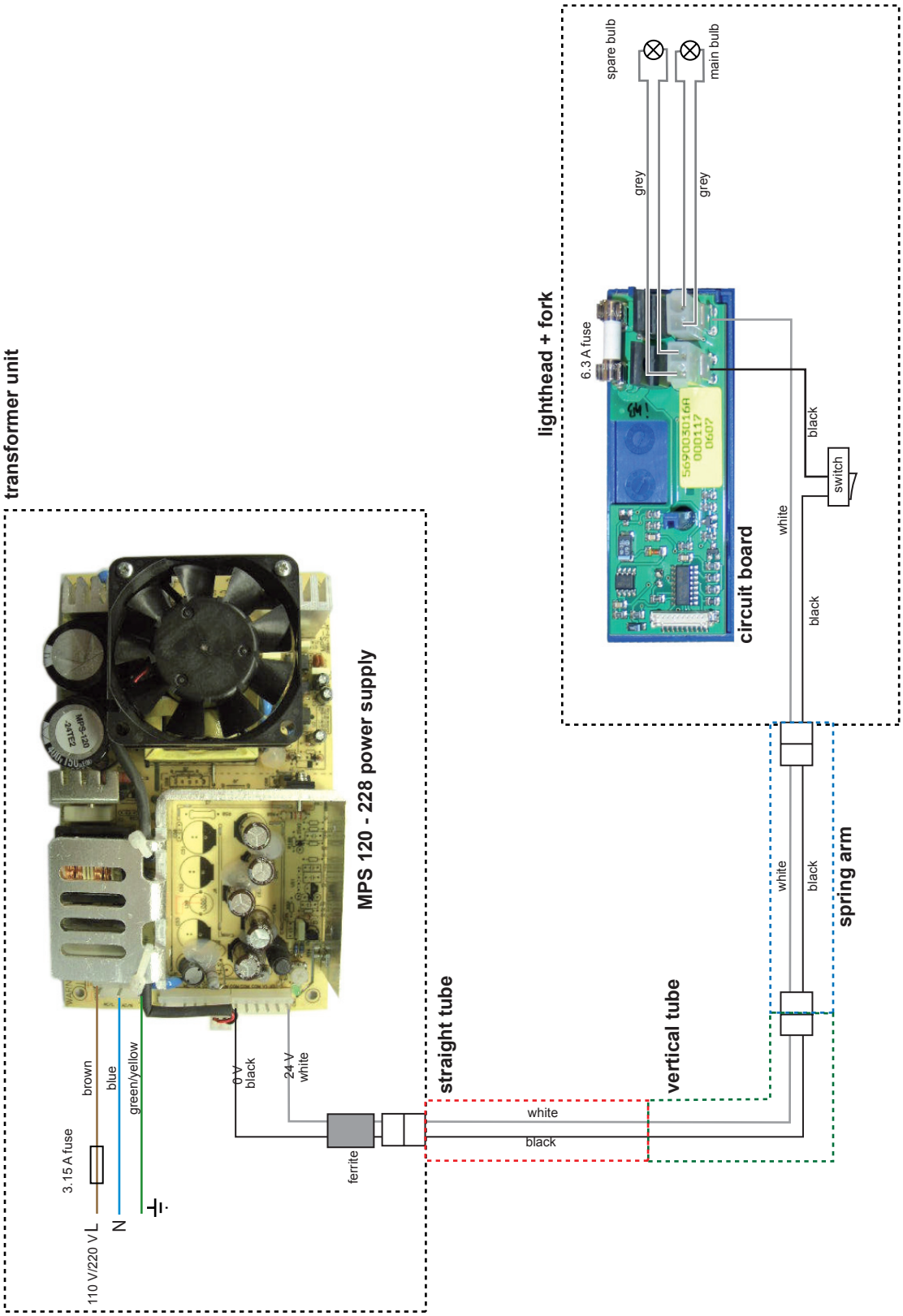
6.3 Ceiling-mounted BLUE 80



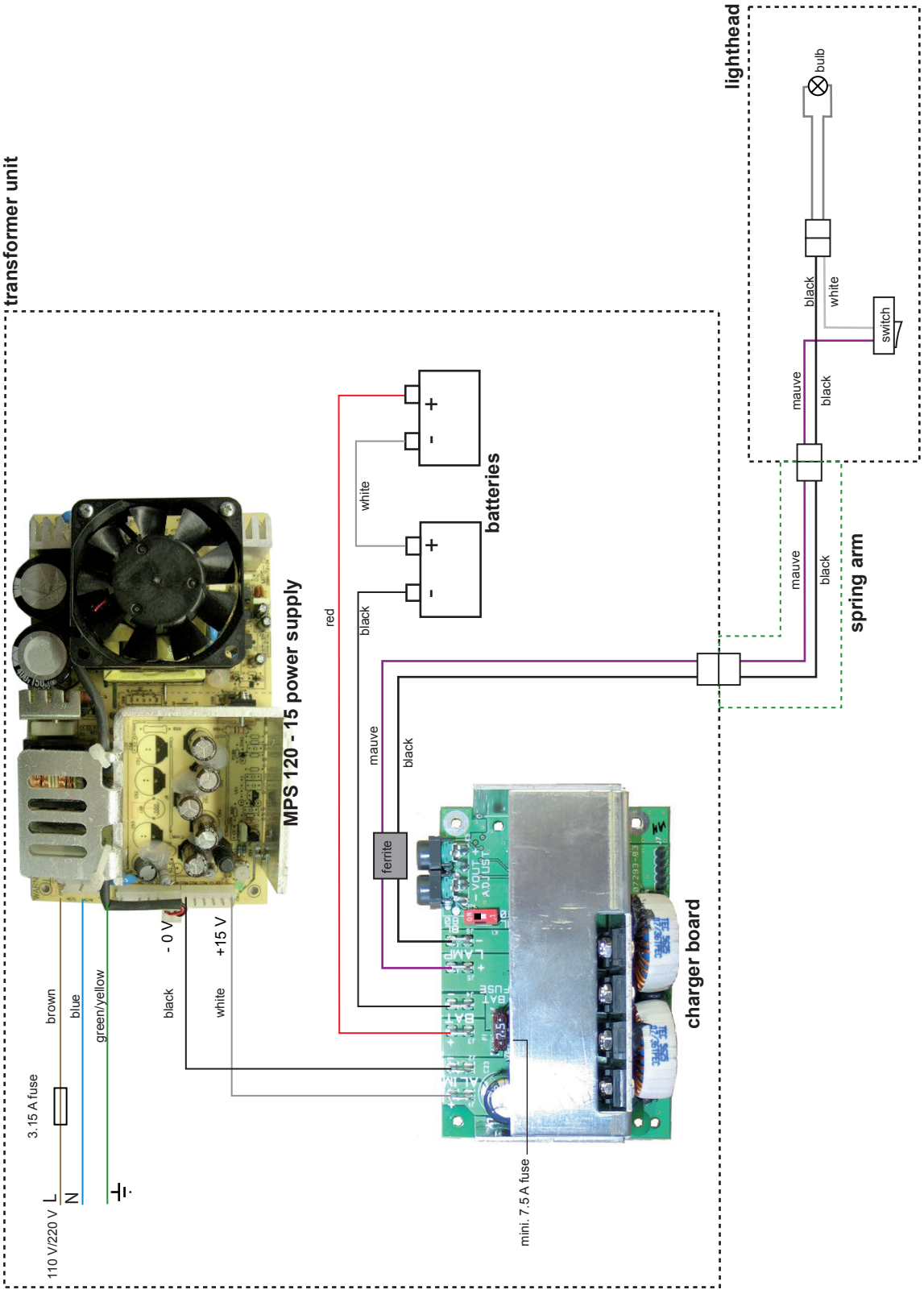
6.4 BLUE 30 MOBILE



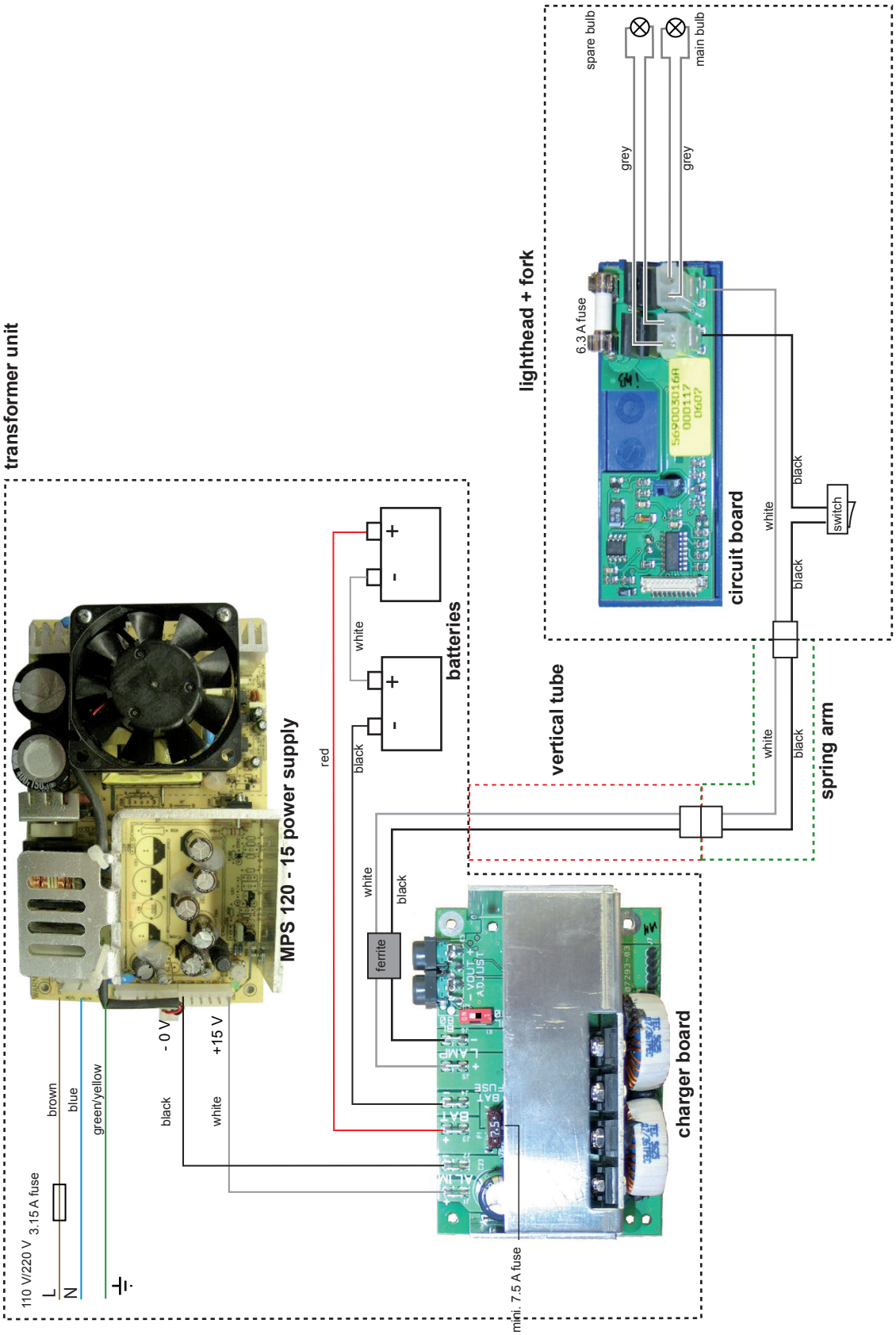
6.5 BLUE 80 MOBILE



6.6 BLUE 30 HOSPITAL



6.7 BLUE 80 HOSPITAL

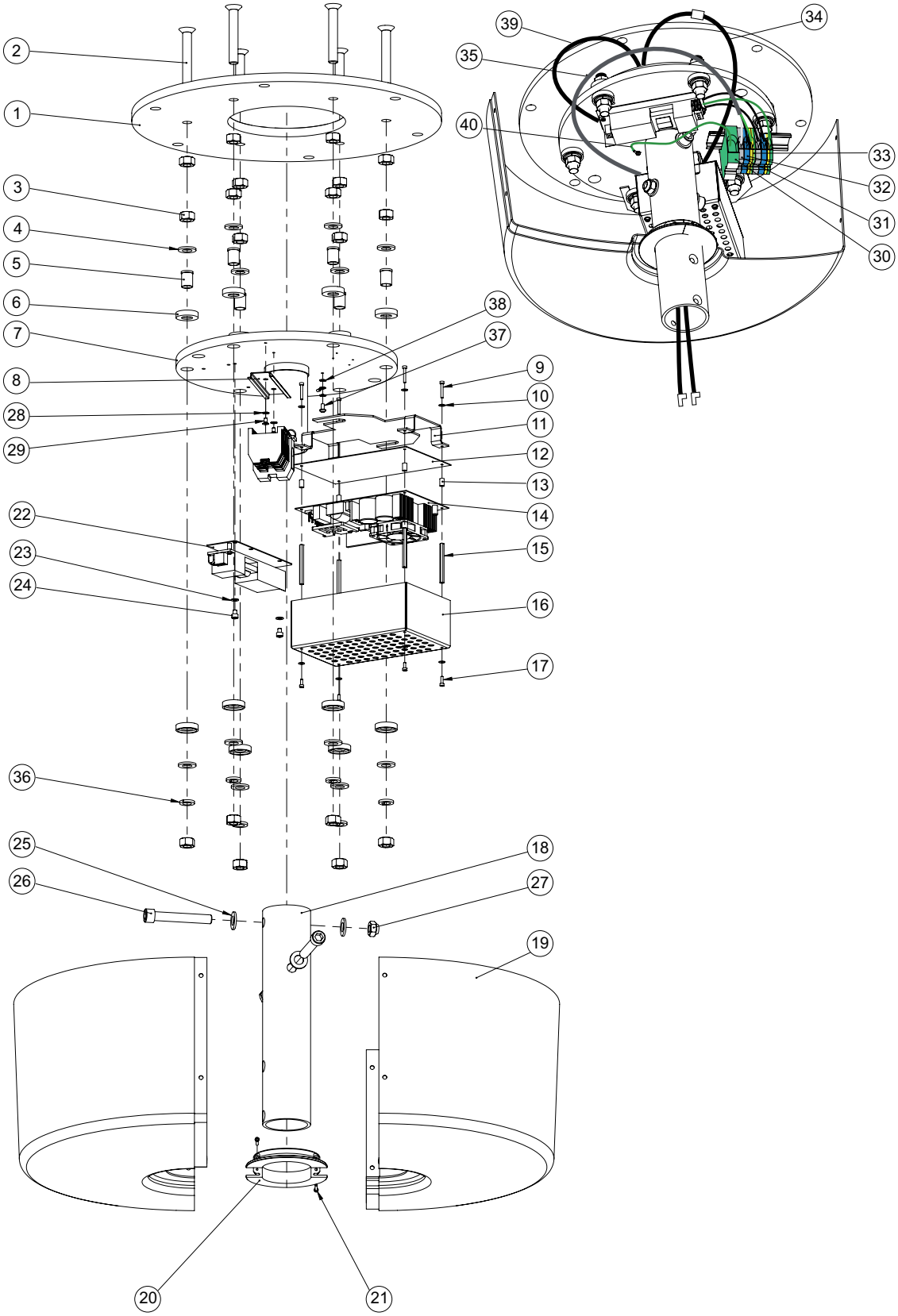


7 DIAGRAMS AND PARTS LISTS

7.1 CEILING-MOUNTED BLUELINE

BLUE ANCHORAGE WITH POWER SUPPLY

DIAGRAM 1

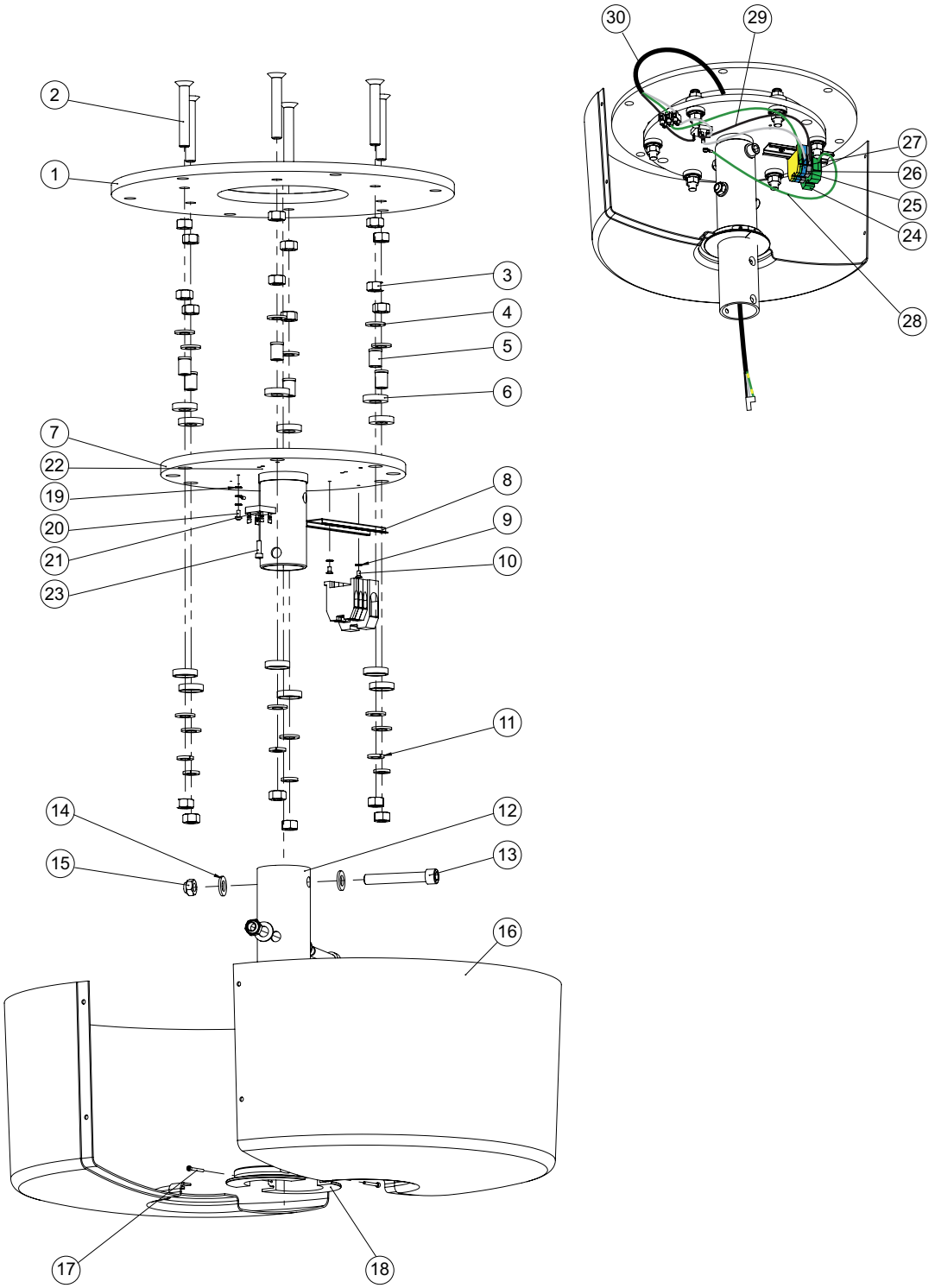


BLUE ANCHORAGE WITH POWER SUPPLY — PARTS LIST 1

Ref.	Part number	Description	Quantity
1	5 607 76 44	Anchor ring for DUO version	1
	5 607 76 53	Anchor plate for single version	1
2		FHc M12 x 80 screw	6
3	5 665 20 38	M12 hex nut DIN 934-8 A4E	18
4	5 665 30 19	13 mm flat washer DIN 125-ST-A4E	12
5	5 601 05 10	Sleeve 15/16x13x21	6
6	5 601 05 11	Plastic washer 30x15x7	12
7	5 608 00 05	BLUE 30/80 flange	1
8	5 608 01 33	Rail	1
	3 693 05 555	**BLUE 80 wall/ceiling-mounted power supply**	
9	6 005 30 320	CHc M3 x 20 stainless steel screw A2 NFE27161	4
10	6 023 70 032	M3 white zinc-plated washer DIN 433	8
11	5 690 03 044	Bracket for BLUE 80 MPS power supply	1
12	5 690 03 045	Plate for BLUE 80 MPS power supply	1
13	6 951 50 010	Round spacer Ø3.2 x 6 x 10	4
14	5 690 03 021	MPS 120 - 228 power supply for BLUE 80	1
15	6 951 00 555	Hexagonal spacer FF M3 x 55	4
16	5 690 03 046	Housing for BLUE 80 MPS power supply	1
17	6 005 30 310	CHc M3 x 10 stainless steel screw	5
18	5 690 11 000-10	200 mm to 1200 mm extension tube	1
19	5 690 05 609	Ceiling mounting cover, height 250 mm	2
20	5 690 10 105	BLUE 30/80 ceiling cover half-ring	2
21		CHc M3 x 25 white zinc-plated steel screw DIN 912	2
	3 693 06 555	**BLUE 30 wall/ceiling-mounted adjustable power supply**	
22	5 690 03 018	BLUE 30 wall/ceiling-mounted adjustable power supply	1
23		M5 Onduflex washer	2
24		CHc M5 x 6 screw	2
25		13 mm flat washer DIN 125	4
26		CHc M12 x 80 screw	2
27		M12 nylstop nut	2
28	5 665 31 02	4.3 mm star washer DIN 6797 FD-ST A4E	2
29	5 665 05 88	FHc M4 x 8 screw DIN 965-4.8 A4E	2
30	5 602 00 01	Earth terminal	1
31	6 890 10 013	Grey junction block	2
32	6 890 39 302	Blue junction block	2
33	6 89010 014	Yellow/green junction block	2
34	5 690 03 030	BLUE flange power cable	1
35	5 690 03 028	BLUE 30/80 power supply terminal strip outlet cable	1
36	5 665 30 31	12 mm Grower washer DIN 127 FD-ST A4E	6
37	5 665 07 30	M4x8 raised countersunk head screw DIN 7985	1
38	5 665 30 71	A-shape 4.3 mm star washer DIN 6797-A4E	2
39	5 600 41 29	Lighthead flange cable	1
40	5 600 44 16	Flange earth cable	1

BLUE 30 ANCHORAGE WITHOUT POWER SUPPLY

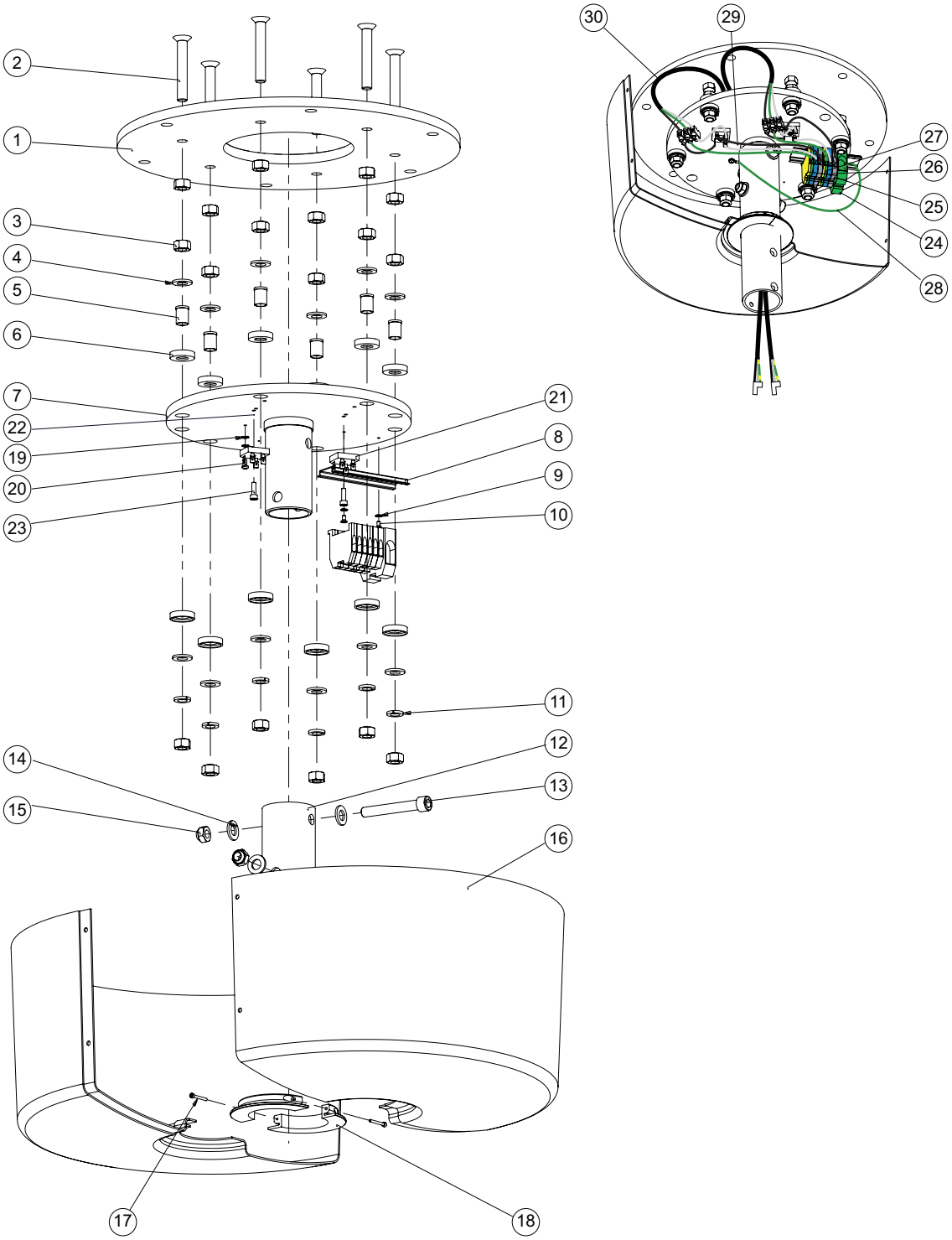
DIAGRAM 2



BLUE 30 ANCHORAGE WITHOUT POWER SUPPLY — PARTS LIST 2

Ref.	Part number	Description	Quantity
1	5 607 76 44	Anchor ring for DUO version	1
	5 607 76 53	Anchor plate for single version	1
2		FHc M12 x 80 screw	6
3	5 665 20 38	M12 hex nut DIN 934-8 A4E	18
4	5 665 30 19	13 mm flat washer DIN 125-ST-A4E	12
5	5 601 05 10	Sleeve 15/16x13x21	6
6	5 601 05 11	Plastic washer 30x15x7	12
7	5 608 00 05	BLUE 30/80 flange	1
8	5 608 01 33	Rail	1
9	5 665 31 02	4.3 mm star washer DIN 6797 FD-ST A4E	2
10	5 665 05 88	FHc M4 x 8 screw DIN 965-4.8 A4E	2
11	5 665 30 31	12 mm Grower washer DIN 127 FD-ST A4E	6
12	5 690 11 000-10	200 mm to 1200 mm extension tube	1
13		CHc M12 x 80 screw	2
14		13 mm flat washer DIN 125	4
15		M12 nylstop nut	2
16	5 690 05 609	Ceiling mounting cover, height 250 mm	2
17		CHc M3 x 25 white zinc-plated steel screw DIN 912	2
18	5 690 10 105	BLUE 30/80 ceiling cover half-ring	2
19	5 665 30 71	A-shape 4.3 mm star washer DIN 6797-A4E	2
20	5 665 07 30	M4x8 DIN 7985	1
21	6 881 00 025	Diode bridge	1
22	6 590 00 014	Silicone thermal heatsink paste	
23	6 005 10 516	CHc M5x16 screw	1
24	5 602 00 01	Earth terminal	1
25	6 890 10 013	Grey junction block	1
26	6 890 39 302	Blue junction block	1
27	6 89010 014	Yellow/green junction block	1
28	5 600 44 16	Earth cable	1
29	5 690 03 035	Diode bridge cable	1
30	5 600 41 29	Lighthead flange cable	1

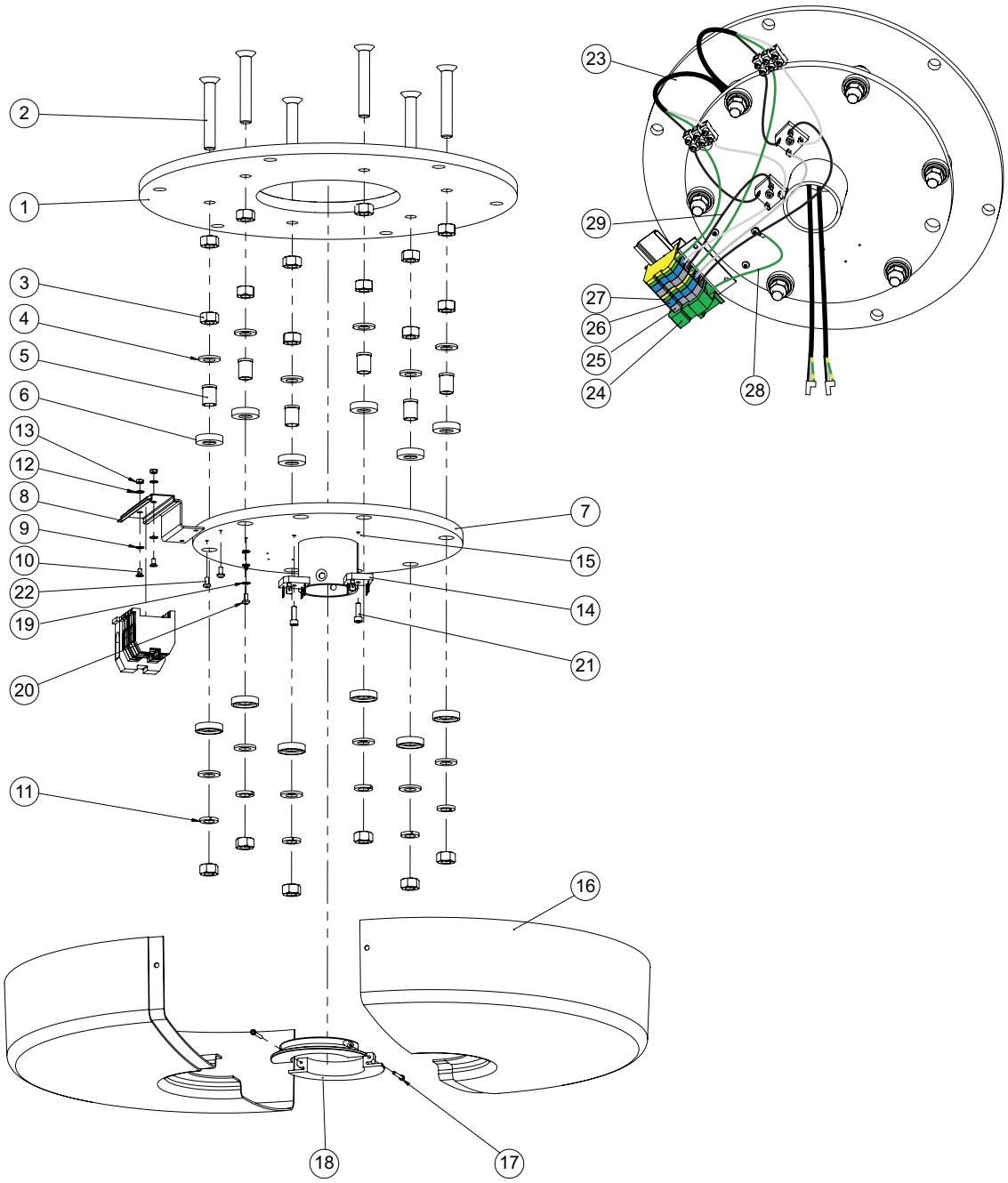
BLUE 80 DUO ANCHORAGE WITHOUT POWER SUPPLY DIAGRAM 3



BLUE 80 DUO ANCHORAGE WITHOUT POWER SUPPLY — PARTS LIST 3

Ref.	Part number	Description	Quantity
1	5 607 76 44	Anchor ring for DUO version	1
2		FHc M12 x 80 screw	6
3	5 665 20 38	M12 hex nut DIN 934-8 A4E	18
4	5 665 30 19	13 mm flat washer DIN 125-ST-A4E	12
5	5 601 05 10	Sleeve 15/16x13x21	6
6	5 601 05 11	Plastic washer 30x15x7	12
7	5 608 00 05	BLUE 30/80 flange	1
8	5 608 01 33	Rail	1
9	5 665 31 02	4.3 mm star washer DIN 6797 FD-ST A4E	2
10	5 665 05 88	FHc M4 x 8 screw DIN 965-4.8 A4E	2
11	5 665 30 31	12 mm Grower washer DIN 127 FD-ST A4E	6
12	5 690 11 000-10	200 mm to 1200 mm extension tube	1
13		CHc M12 x 80 screw	2
14		13 mm flat washer DIN 125	4
15		M12 nylstop nut	2
16	5 690 05 609	Ceiling mounting cover, height 250 mm	2
17		CHc M3 x 25 white zinc-plated steel screw DIN 912	2
18	5 690 10 105	BLUE 30/80 ceiling cover half-ring	2
19	5 665 30 71	A-shape 4.3 mm star washer DIN 6797-A4E	2
20	5 665 07 30	M4x8 DIN 7985	1
21	6 881 00 025	Diode bridge	1
22	6 590 00 014	Silicone thermal heatsink paste	
23	6 005 10 516	CHc M5x16 screw	1
24	5 602 00 01	Earth terminal	1
25	6 890 10 013	Grey junction block	2
26	6 890 39 302	Blue junction block	2
27	6 89010 014	Yellow/green junction block	2
28	5 600 44 16	Earth cable	1
29	5 690 03 035	Diode bridge cable	2
30	5 600 41 29	Lighthead flange cable	2

BLUE LC ANCHORAGE WITHOUT POWER SUPPLY DIAGRAM 4



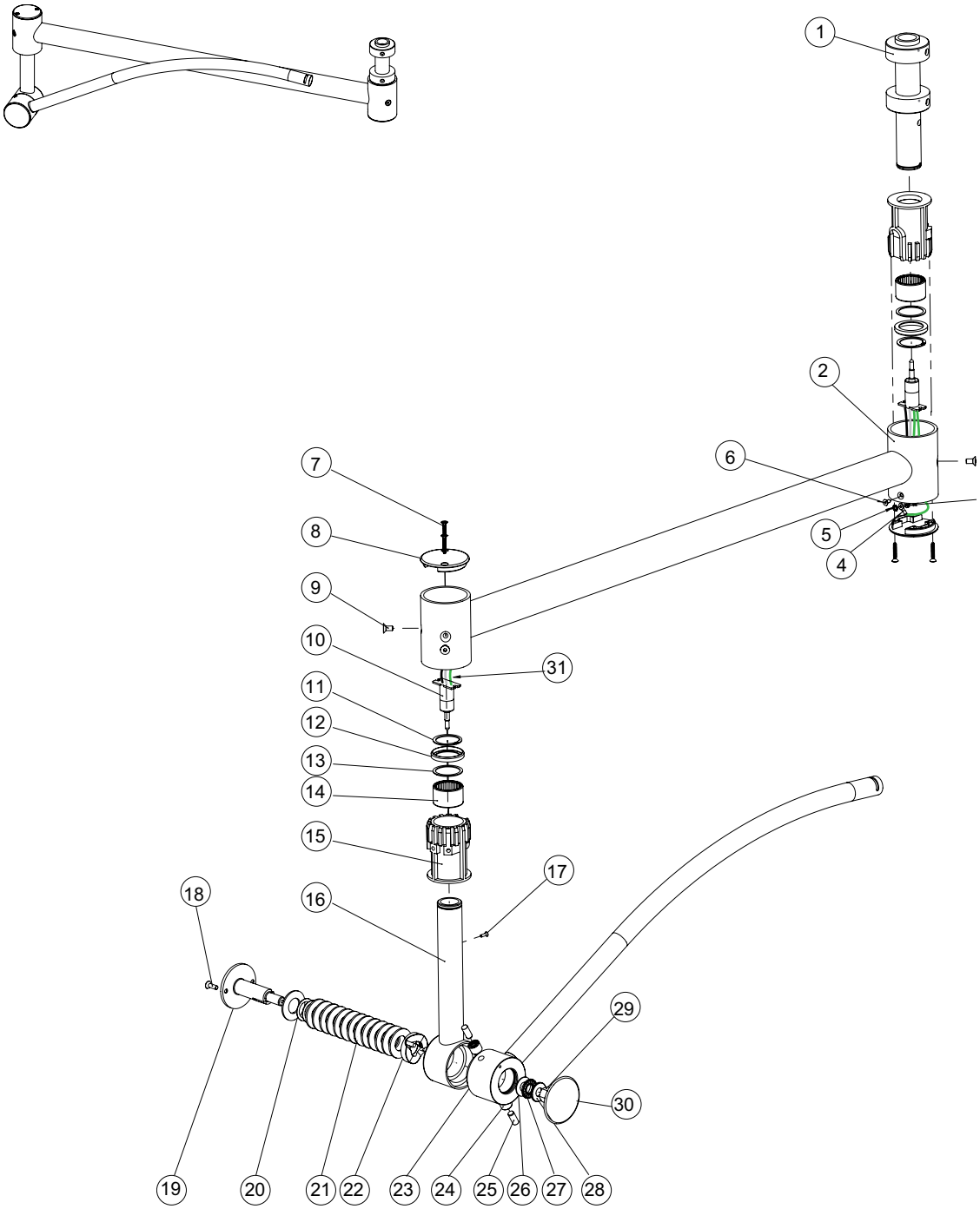
BLUE LC ANCHORAGE WITHOUT POWER SUPPLY — PARTS LIST 4

Ref.	Part number	Description	Quantity
1	5 607 76 44	Anchor ring for DUO version	1
	5 607 76 53	Anchor plate for single version	1
2		FHc M12 x 80 screw	6
3	5 665 20 38	M12 hex nut DIN 934-8 A4E	18
4	5 665 30 19	13 mm flat washer DIN 125-ST-A4E	12
5	5 601 05 10	Sleeve 15/16x13x21	6
6	5 601 05 11	Plastic washer 30x15x7	12
7	5 690 15 001	BLUE 30/80 LCH anchor tube	1
8	5 608 01 33	Rail	1
9	5 665 31 02	4.3 mm star washer DIN 6797 FD-ST A4E	2
10	5 665 05 88	FHc M4 x 8 screw DIN 965-4.8 A4E	2
11	5 665 30 31	12 mm Grower washer DIN 127 FD-ST A4E	6
12	5 665 30 71	A-shape 4.3 mm star washer DIN 6797-A4E	2
13	5 665 09 07	M4 nut DIN 934 A4E	2
14	6 881 00 025	Diode bridge	
15	6 590 00 014	Silicone thermal heatsink paste	
16	5 690 05 608	Ceiling mounting cover, height 115 mm	2
17		CHc M3 x 25 white zinc-plated steel screw DIN 912	2
18	5 690 10 105	BLUE 30/80 ceiling cover half-ring	2
19	5 665 30 71	A-shape 4.3 mm star washer DIN 6797-A4E	2
20	5 665 07 30	M4x8 DIN 7985	1
21	6 005 10 516	CHc M5x16 screw	1
22	5 665 04 70		
23	5 600 41 29	Lighthead flange cable	2
24	5 602 00 01	Earth terminal	1
25	6 890 10 013	Grey junction block	2
26	6 890 39 302	Blue junction block	2
27	6 89010 014	Yellow/green junction block	2
28	5 600 44 16	Earth cable	1
29	5 690 03 035	Diode bridge cable	2

BLUE 30 SINGLE SUSPENSION ARM

DIAGRAM 5

5 690 80 999



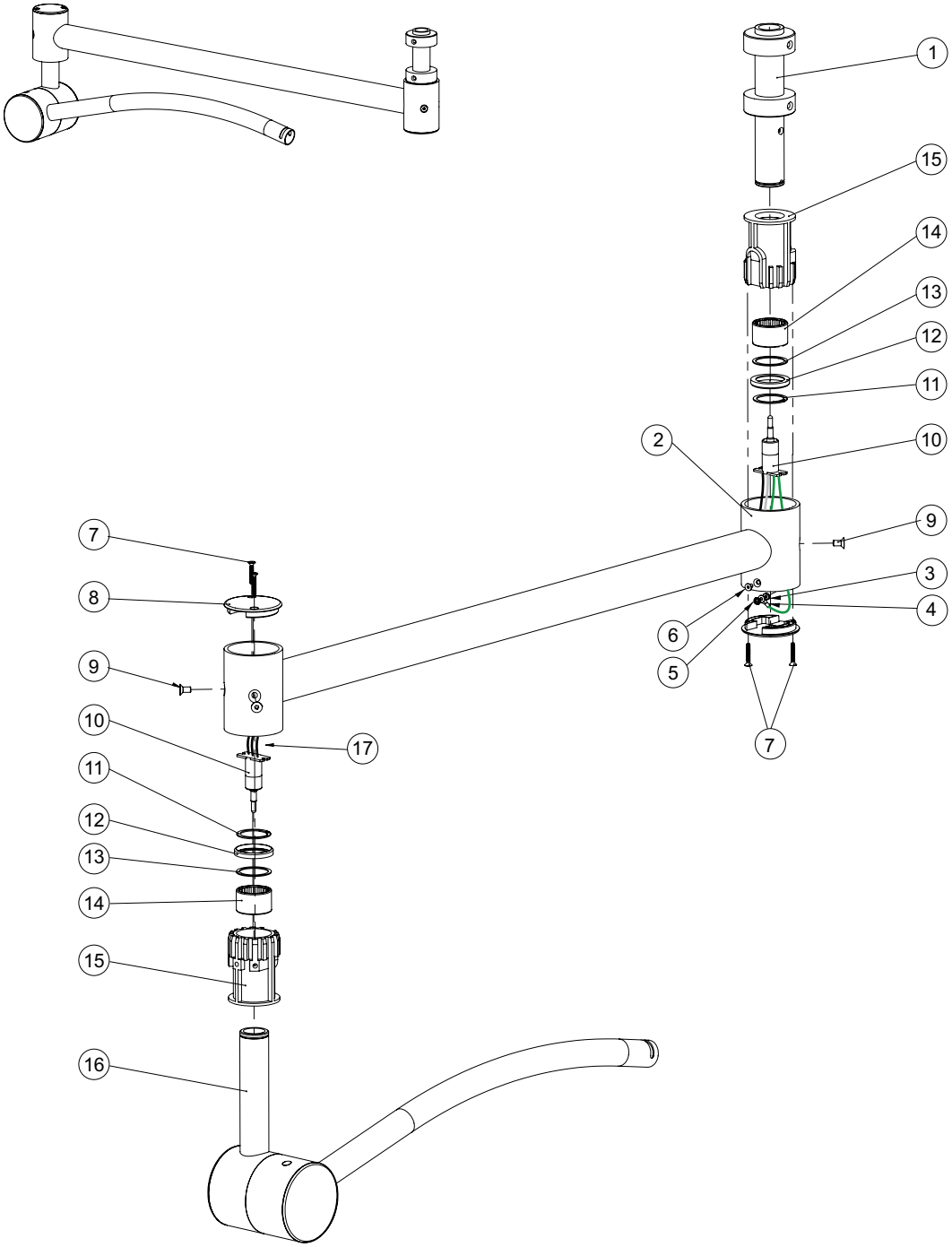
BLUE 30 SINGLE SUSPENSION ARM — PARTS LIST 5

Ref.	Part number	Description	Quantity
1	5 607 63 45	BLUE 30-80 single shaft	1
2	5 690 12 102	B30-80 850 mm single extension arm	1
3		Hm M4 nut	1
4		16/18 AWG M4 eyelet contact	1
5		M4 serrated washer	1
6		FHc M4 x 8 screw	1
7		FZ M4 x 25 screw	4
8	5 690 10 282	BLUE 30-80 single suspension arm cap	2
9		FHc M6 x 12 screw	4
10	5 601 64 00	ONDAL 3-way rotating contact	2
11	5 601 97 30	Circlips for 32 mm shaft	2
12	5 607 74 83	Ring	2
13	5 601 72 05	Set ring	2
14		HK 32x39x24 needle bush	2
15	5 690 10 011	Suspension shaft plastic ring	2
16	5 690 13 004	BLUE 30 spring arm interface	1
17		FHc M3 x 10 screw	1
18		FHc M5 x 16 screw	2
19	5 690 13 001	Spring arm shaft	1
20	5 665 31 78	22x30x0.5 mm washer DIN 988 A4E	2
21	5 601 97 04	40x20.4x2.25 mm spring washer DIN 2093-1.8159	14
22	5 690 13 210	BLUE 30 spring arm cam	1
23	5 690 13 004	BLUE 30 spring arm interface	1
24	5 668 00 50	NK 8/12 TN needle bearing	2
25		8M6x20 cylindrical pin	2
26	5 668 00 55	AS 1226 stop washer	1
27	5 668 0054	Axial needle bearing cage AXK 1226	1
28	5 668 00 56	LS 1226 stop washer	1
29	5 665 20 08	Nylstop nut DIN 985 A4E	1
30	**5 690 10 102**	**BLUE 30 spring arm cap**	**1**
31	**5 690 03 039**	**BLUE 80/30 single 850 cable**	**1**

BLUE 80 SINGLE SUSPENSION ARM

DIAGRAM 6

5 690 81 999



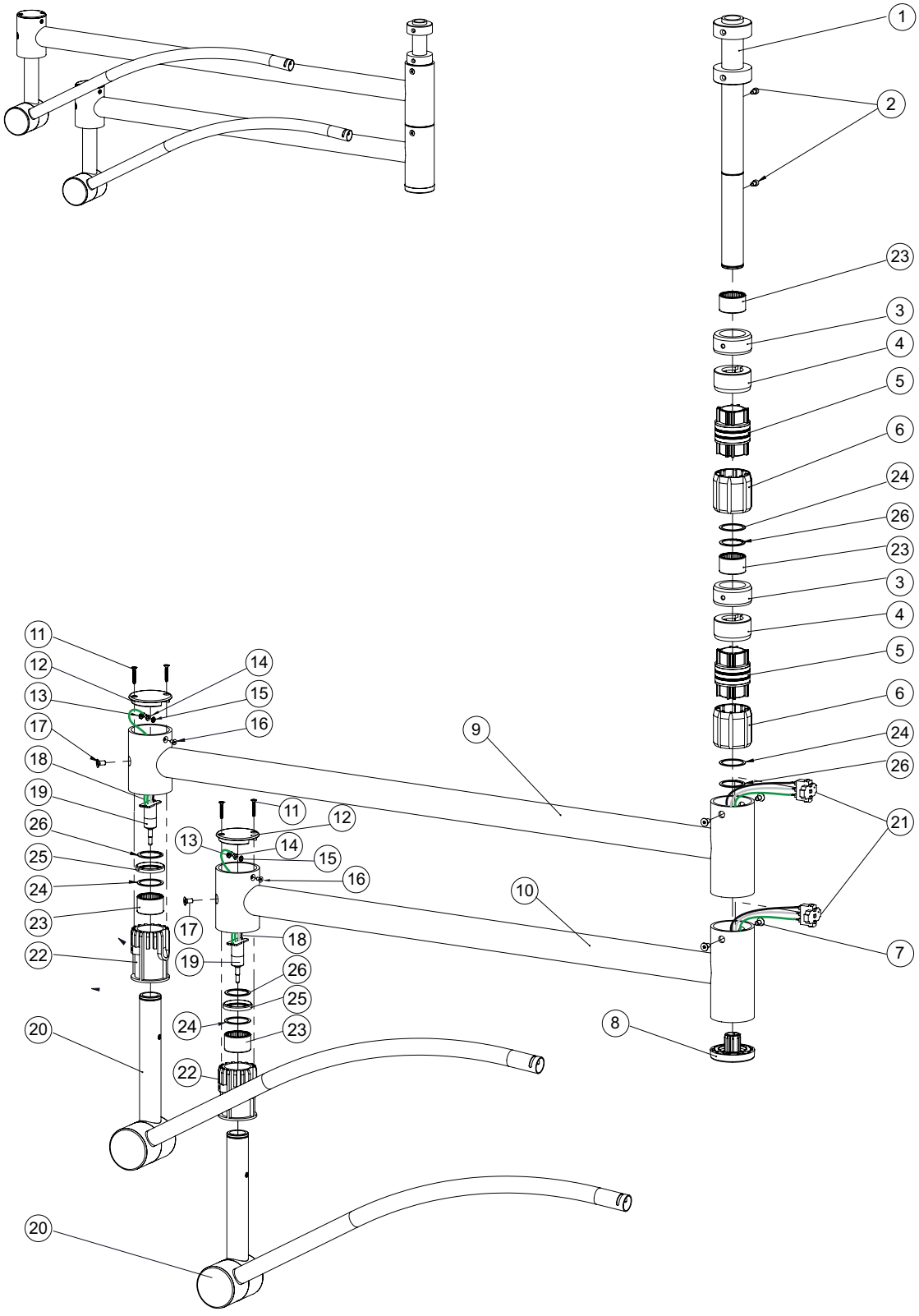
BLUE 80 SINGLE SUSPENSION ARM — PARTS LIST 6

Ref.	Part number	Description	Quantity
1	5 607 63 45	BLUE 30-80 single shaft	1
2	5 690 12 102	B30-80 850 mm single extension arm	1
3		Hm M4 nut	1
4		16/18 AWG M4 eyelet contact	1
5		M4 serrated washer	1
6		FHc M4 x 8 screw	1
7		FZ M4 x 25 screw	4
8	5 690 10 282	BLUE 30-80 single suspension arm cap	2
9		FHc M6 x 12 screw DIN 7991 8.8 A4E	4
10	5 601 64 00	ONDAL 3-way rotating contact	2
11	5 601 97 30	Circlip for shaft Ø32	2
12	5 607 74 83	Ring	2
13	5 601 72 05	Set ring	2
14		HK 32x39x24 needle bush	2
15	5 690 10 011	Suspension shaft plastic ring	2
16	5 690 42 999	BLUE 80 spring arm	1
17	**5 690 03 039**	**BLUE 80/30 single 850 cable**	**1**

BLUE 30-30 DOUBLE SUSPENSION

DIAGRAM 7

5 690 86 999



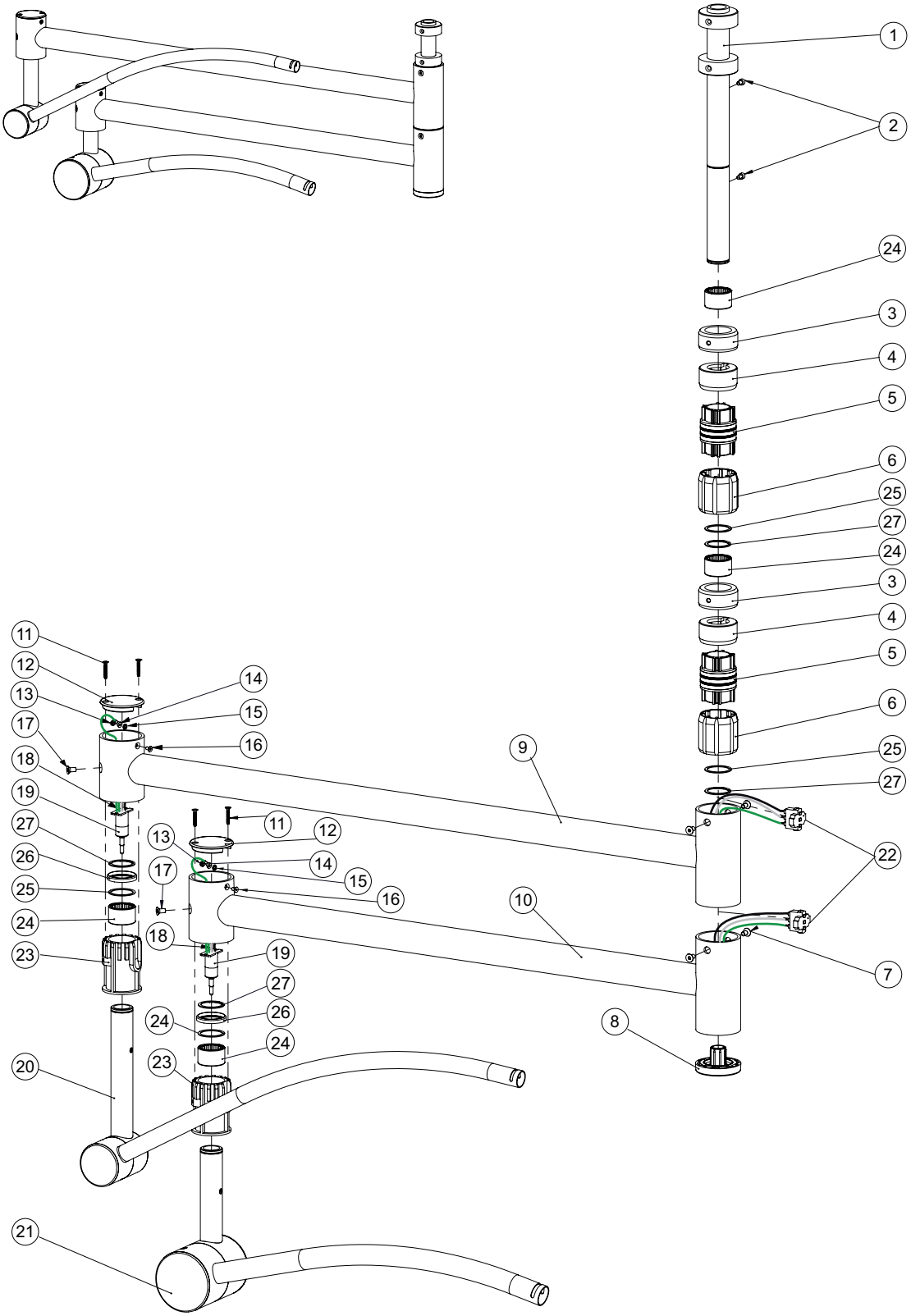
BLUE 30-30 DOUBLE SUSPENSION — PARTS LIST 7

Ref.	Part number	Description	Quantity
1	5 607 72 57	BLUE 30-80 double shaft	1
2	5 665 07 71	CHc M5x8 screw DIN 912-8.8 A4E	2
3	5 607 71 80	Needle bearing ring	4
4	5 607 73 13	BLUE 30-80 top shaft ring	2
5	5 607 73 15	Rotating contact	2
6	5 607 73 14	BLUE 30-80 bottom shaft ring	2
7		FHc M6x12 screw	4
8	**5 690 10 104**	**Bumper**	**1**
9	5 690 12 101	BLUE 30-80 1000 mm duo extension arm	1
10	5 690 12 100	BLUE 30-80 850 mm duo extension arm	1
11		FZ M4 x 25 screw	4
12	5 690 10 282	BLUE 30-80 single suspension arm cap	2
13		Hm M4 nut	2
14		16/18 AWG M4 eyelet contact	2
15		M4 serrated washer	2
16		FHc M4 x 8 screw	2
17		FHc M6 x 12 screw DIN 7991 8.8 A4E	4
18	**5 690 03 040**	**BLUE 30/80 duo 1000 cable**	**2**
19	5 601 64 00	ONDAL 3-way rotating contact	2
20	5 690 41 999	BLUE 30 wall/ceiling-mounted spring arm	2
21	**5 605 31 53**	**3-track brushes**	**2**
	5 605 34 53	**BLUE plastic ring with bearing**	
22	5 690 10 011	Suspension shaft plastic ring	2
23	5 668 00 39	Needle bearing bush HK 32x39x24	4
24	5 601 72 05	Set ring	4
25	5 607 74 83	Ring	2
26	5 601 97 30	Circlip for shaft Ø32	4

BLUE 30-80 DOUBLE SUSPENSION

DIAGRAM 8

5 690 85 999



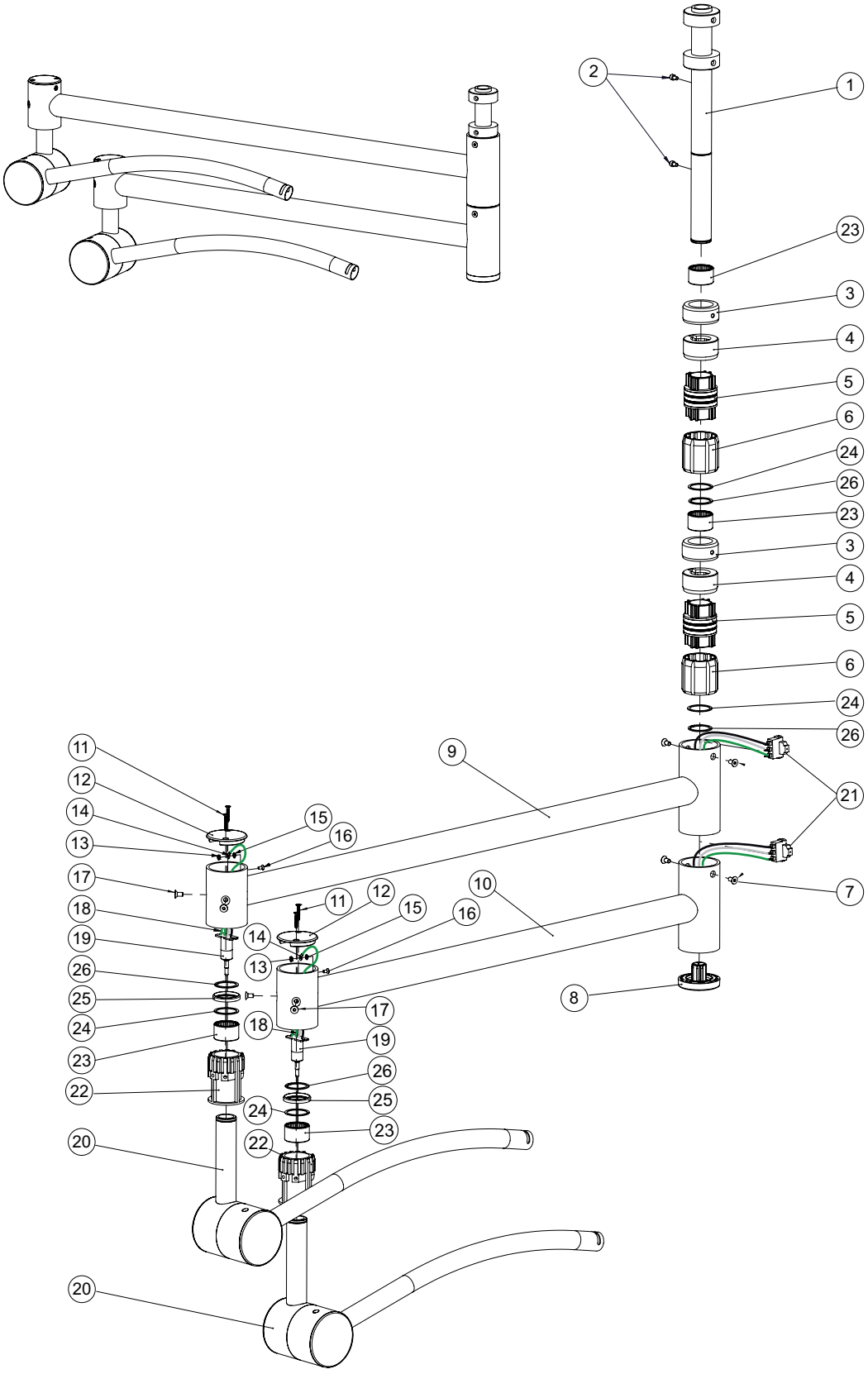
BLUE 30-80 DOUBLE SUSPENSION — PARTS LIST 8

Ref.	Part number	Description	Quantity
1	5 607 72 57	BLUE 30-80 double shaft	1
2	5 665 07 71	CHc M5x8 screw DIN 912-8.8 A4E	2
3	5 607 71 80	Needle bearing ring	4
4	5 607 73 13	BLUE 30-80 top shaft ring	2
5	5 607 73 15	Rotating contact	2
6	5 607 73 14	BLUE 30-80 bottom shaft ring	2
7		FHc M6x12 screw	4
8	**5 690 10 104**	**Bumper**	**1**
9	5 690 12 101	BLUE 30-80 1000 mm duo extension arm	1
10	5 690 12 100	BLUE 30-80 850 mm duo extension arm	1
11		FZ M4 x 25 screw	4
12	5 690 10 282	BLUE 30-80 single suspension arm cap	2
13		Hm M4 nut	2
14		16/18 AWG M4 eyelet contact	2
15		M4 serrated washer	2
16		FHc M4 x 8 screw	2
17		FHc M6 x 12 screw DIN 7991 8.8 A4E	4
18	**5 690 03 040**	**BLUE 30/80 duo 1000 cable**	**2**
19	5 601 64 00	ONDAL 3-way rotating contact	2
20	5 690 41 999	BLUE 30 wall/ceiling-mounted spring arm	1
21	5 690 42 999	BLUE 80 spring arm	1
22	**5 605 31 53**	**3-track brushes**	**2**
	5 693 02 555	**BLUE plastic ring with bearing**	
23	5 690 10 011	Suspension shaft plastic ring	2
24	5 668 00 39	Needle bearing bush HK 32x39x24	4
25	5 601 72 05	Set ring	4
26	5 607 74 83	Ring	2
27	5 601 97 30	Circlip for shaft Ø32	4

BLUE 80-80 DOUBLE SUSPENSION

DIAGRAM 9

5 690 84 999



BLUE 80-80 DOUBLE SUSPENSION — PARTS LIST 9

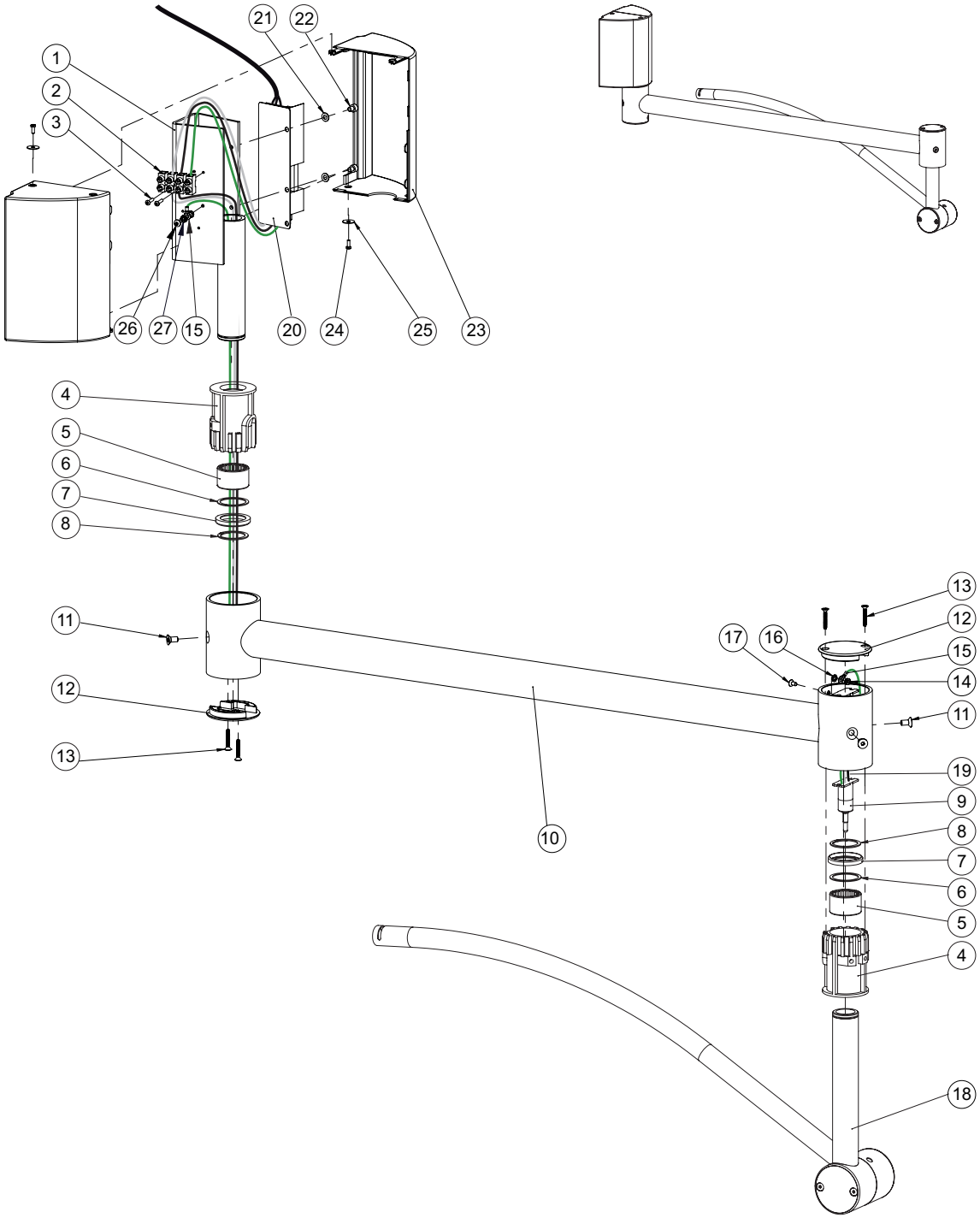
Ref.	Part number	Description	Quantity
1	5 607 72 57	BLUE 30-80 double shaft	1
2	5 665 07 71	CHc M5x8 screw DIN 912-8.8 A4E	2
3	5 607 71 80	Needle bearing ring	4
4	5 607 73 13	BLUE 30-80 top shaft ring	2
5	5 607 73 15	Rotating contact	2
6	5 607 73 14	BLUE 30-80 bottom shaft ring	2
7		FHc M6x12 screw	4
8	**5 690 10 104**	**Bumper**	**1**
9	5 690 12 101	BLUE 30-80 1000 mm duo extension arm	1
10	5 690 12 100	BLUE 30-80 850 mm duo extension arm	1
11		FZ M4 x 25 screw	4
12	5 690 10 282	BLUE 30-80 single suspension arm cap	2
13		Hm M4 nut	2
14		16/18 AWG M4 eyelet contact	2
15		M4 serrated washer	2
16		FHc M4 x 8 screw	2
17		FHc M6 x 12 screw DIN 7991 8.8 A4E	4
18	**5 690 03 040**	**BLUE 30-80 duo 1000 cable**	**2**
19	5 601 64 00	ONDAL 3-way rotating contact	2
20	5 690 42 999	BLUE 80 spring arm	2
21	**5 605 31 53**	**3-track brushes**	**2**
	5 693 02 555	**BLUE plastic ring with bearing**	
22	5 690 10 011	Suspension shaft plastic ring	2
23	5 668 00 39	Needle bearing bush HK 32x39x24	4
24	5 601 72 05	Set ring	4
25	5 607 74 83	Ring	2
26	5 601 97 30	Circlip for shaft Ø32	4

7.2 WALL-MOUNTED BLUELINE

WALL-MOUNTED BLUE 30 SUSPENSION ARM

DIAGRAM 10

5 690 88 999



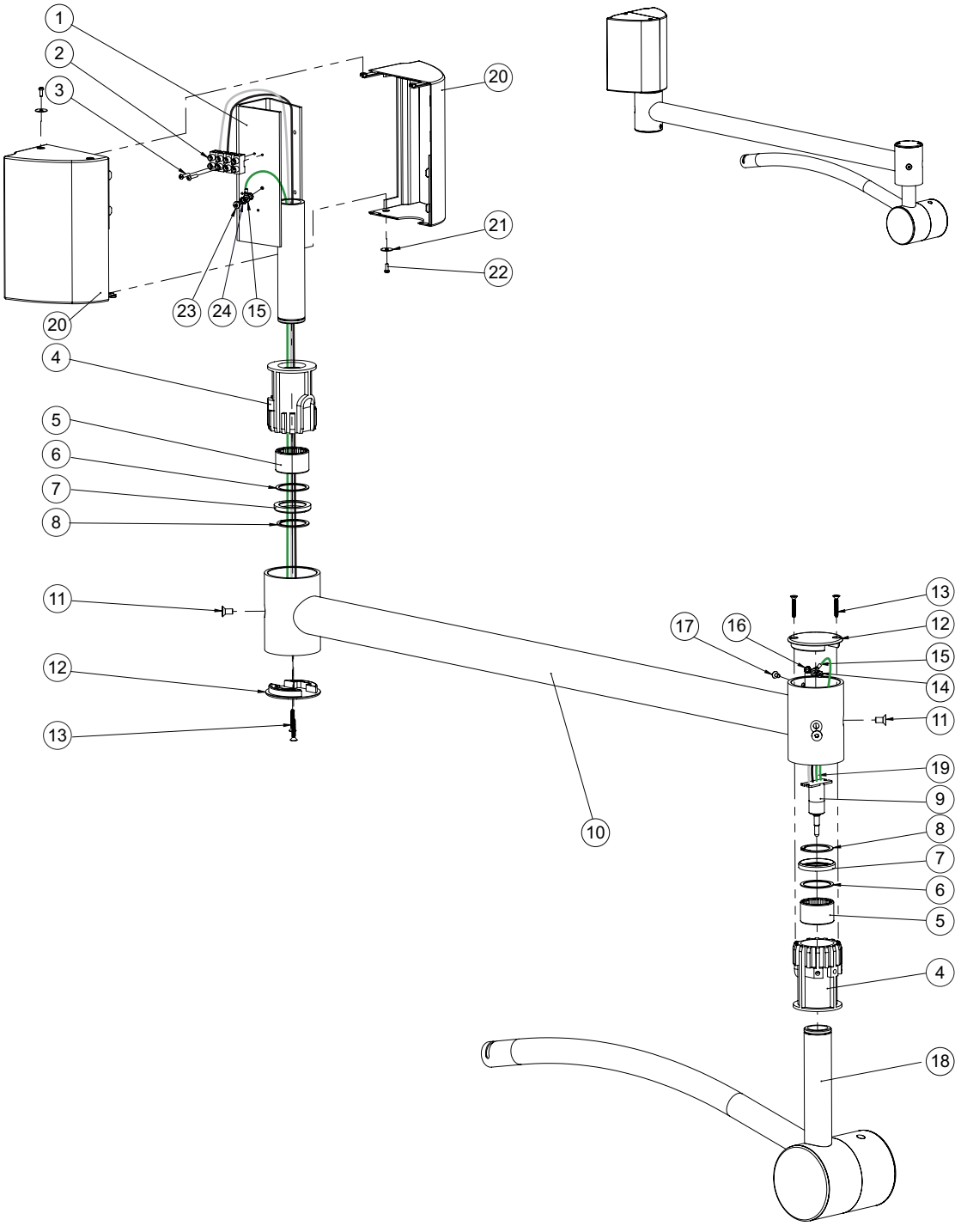
WALL-MOUNTED BLUE 30 SUSPENSION ARM — PARTS LIST 10

Ref.	Part number	Description	Quantity
1	5 608 00 16	Wall-mounted BLUE 30-80 mounting point	1
2	5 601 96 38	4-way connection strip	1
3	5 665 04 67	BZ M3 x 16 screw DIN 7985-4.8-A4E	2
	5 693 02 555	**BLUE plastic ring with bearing**	
4	5 690 10 011	Suspension shaft plastic ring	2
5	5 668 00 39	HK 32x39x24 needle bush	2
6	5 601 72 05	Set ring	2
7	5 607 74 83	Ring	2
8	5 601 97 30	Circlip for shaft Ø32	2
9	5 601 64 00	ONDAL 3-way rotating contact	1
10	5 690 12 103	B30-80 850 mm wall-mounted extension arm	1
11		FHc M6 x 12 screw DIN 7991 8.8 A4E	4
12	5 690 10 282	BLUE 30-80 single suspension arm cap	2
13		FZ M4 x 25 screw	2
14		Hm M4 nut	1
15		16/18 AWG M4 eyelet contact	2
16		M4 serrated washer	1
17		FHc M4 x 8 screw	1
18	**5 690 41 999**	**BLUE 30 spring arm**	**1**
19	**5 690 03 038**	**Wiring**	**1**
	3 693 06 555	**BLUE 30 wall/ceiling-mounted adjustable power supply**	
20	5 690 03 018	BLUE 30 wall/ceiling-mounted adjustable power supply	1
21		M5 Onduflex washer	2
22		CHc M5 x 6 screw	2
23	**5 690 10 106**	**BLUE 30-80 wall-mounting cover**	**1**
24		M3x8 plastic screw T15	2
25		Stainless steel L4 washer	2
26	5 665 04 70	Bz M4x8 screw	1
27	5 665 30 71	A-shape 4.3 mm star washer DIN 6797-A4E	2

WALL-MOUNTED BLUE 80 SUSPENSION ARM

DIAGRAM 11

5 690 87 999



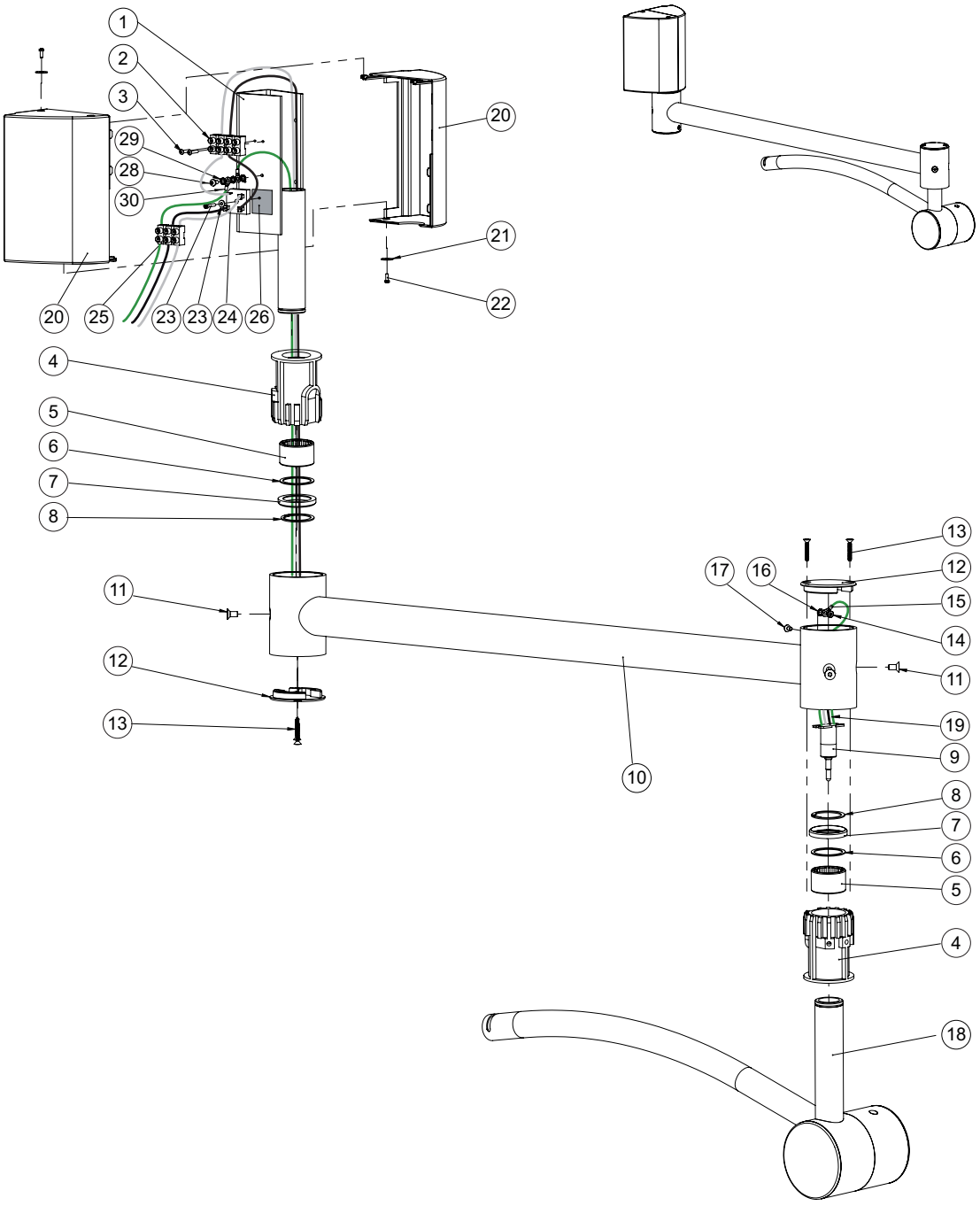
WALL-MOUNTED BLUE 80 SUSPENSION ARM — PARTS LIST 11

Ref.	Part number	Description	Quantity
1	5 608 00 16	Wall-mounted BLUE 30-80 mounting point	1
2	5 601 96 38	4-way connection strip	1
3	5 665 04 67	BZ M3 x 16 screw DIN 7985-4.8-A4E	2
	5 693 02 555	**BLUE plastic ring with bearing**	
4	5 690 10 011	Suspension shaft plastic ring	2
5	5 668 00 39	HK 32x39x24 needle bush	2
6	5 601 72 05	Set ring	2
7	5 607 74 83	Ring	2
8	5 601 97 30	Circlip for shaft Ø32	2
9	5 601 64 00	ONDAL 3-way rotating contact	1
10	5 690 12 103	B30-80 850 mm wall-mounted extension arm	1
11		FHc M6 x 12 screw DIN 7991 8.8 A4E	4
12	5 690 10 282	BLUE 30-80 single suspension arm cap	2
13		FZ M4 x 25 screw	2
14		Hm M4 nut	1
15		16/18 AWG M4 eyelet contact	2
16		M4 serrated washer	1
17		FHc M4 x 8 screw	1
18	**5 690 42 999**	**BLUE 80 spring arm**	**1**
19	**5 690 03 038**	**Wiring**	**1**
20	**5 690 10 106**	**BLUE 30-80 wall-mounting cover**	**1**
21		Stainless steel L4 washer	2
22		M3x8 plastic screw T15	2
23	5 665 04 70	Bz M4x8 screw	1
24	5 665 30 71	A-shape 4.3 mm star washer DIN 6797-A4E	3

WALL-MOUNTED BLUE 30-80 SUSPENSION ARM WITHOUT POWER SUPPLY

DIAGRAM 12

5 690 94 999



WALL-MOUNTED BLUE 30-80 SUSPENSION ARM WITHOUT POWER SUPPLY

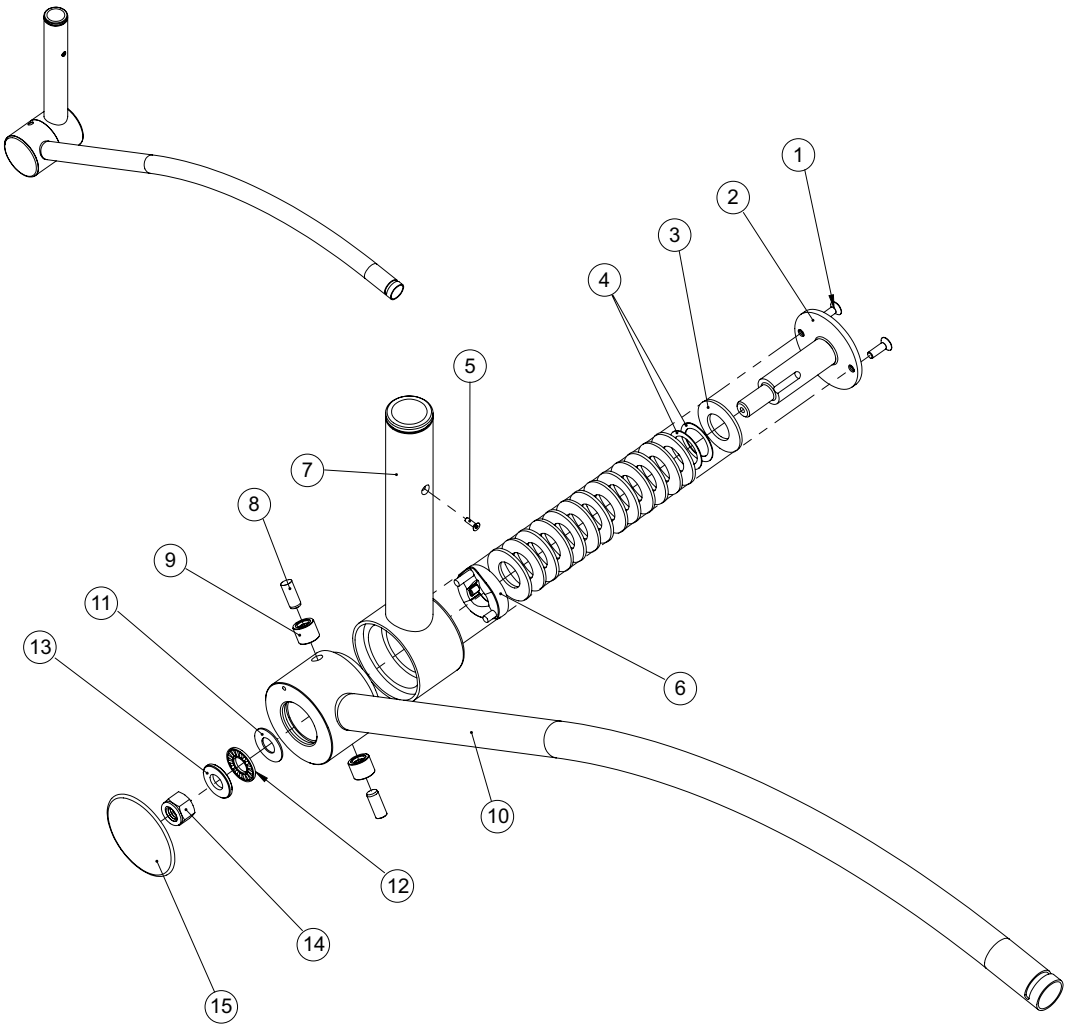
PARTS LIST 12

Ref.	Part number	Description	Quantity
1	5 608 00 16	Wall-mounted BLUE 30-80 mounting point	1
2	5 601 96 38	4-way connection strip	1
3	5 665 04 67	BZ M3 x 16 screw DIN 7985-4.8-A4E	2
	5 693 02 555	**BLUE plastic ring with bearing**	
4	5 690 10 011	Suspension shaft plastic ring	2
5	5 668 00 39	HK 32x39x24 needle bush	2
6	5 601 72 05	Set ring	2
7	5 607 74 83	Ring	2
8	5 601 97 30	Circlip for shaft Ø32	2
9	5 601 64 00	ONDAL 3-way rotating contact	2
10	5 690 12 103	B30-80 850 mm wall-mounted extension arm	1
11		FHc M6 x 12 screw DIN 7991 8.8 A4E	4
12	5 690 10 282	BLUE 30-80 single suspension arm cap	2
13		FZ M4 x 25 screw	2
14		Hm M4 nut	1
15		16/18 AWG M4 eyelet contact	3
16		M4 serrated washer	1
17		FHc M4 x 8 screw	1
18	5 690 41 999	BLUE 30 spring arm	1
	5 690 42 999	BLUE 80 spring arm	1
19	**5 690 03 038**	**Wiring**	**1**
20	**5 690 10 106**	**BLUE 30-80 wall-mounting cover (right and left)**	**1**
21		Stainless steel L4 washer	2
22		M3x8 T15 plastic screw	2
23	6 005 30 416	CHc M4x16 stainless steel screw	1
	3 690 08 998	**Diode bridge kit**	
24	6 881 00 025	Diode bridge	1
25	5 690 03 035	Diode bridge cable	1
26		Thermal paste	
27	5 665 30 06	3.2 mm flat washer DIN 125	1
28	5 665 04 70	Bz M4x8 screw	1
29	5 665 30 71	A-shape 4.3 mm star washer DIN 6797-A4E	3

BLUE 30 WALL/CEILING-MOUNTED SPRING ARM

DIAGRAM 13

5 690 41 999



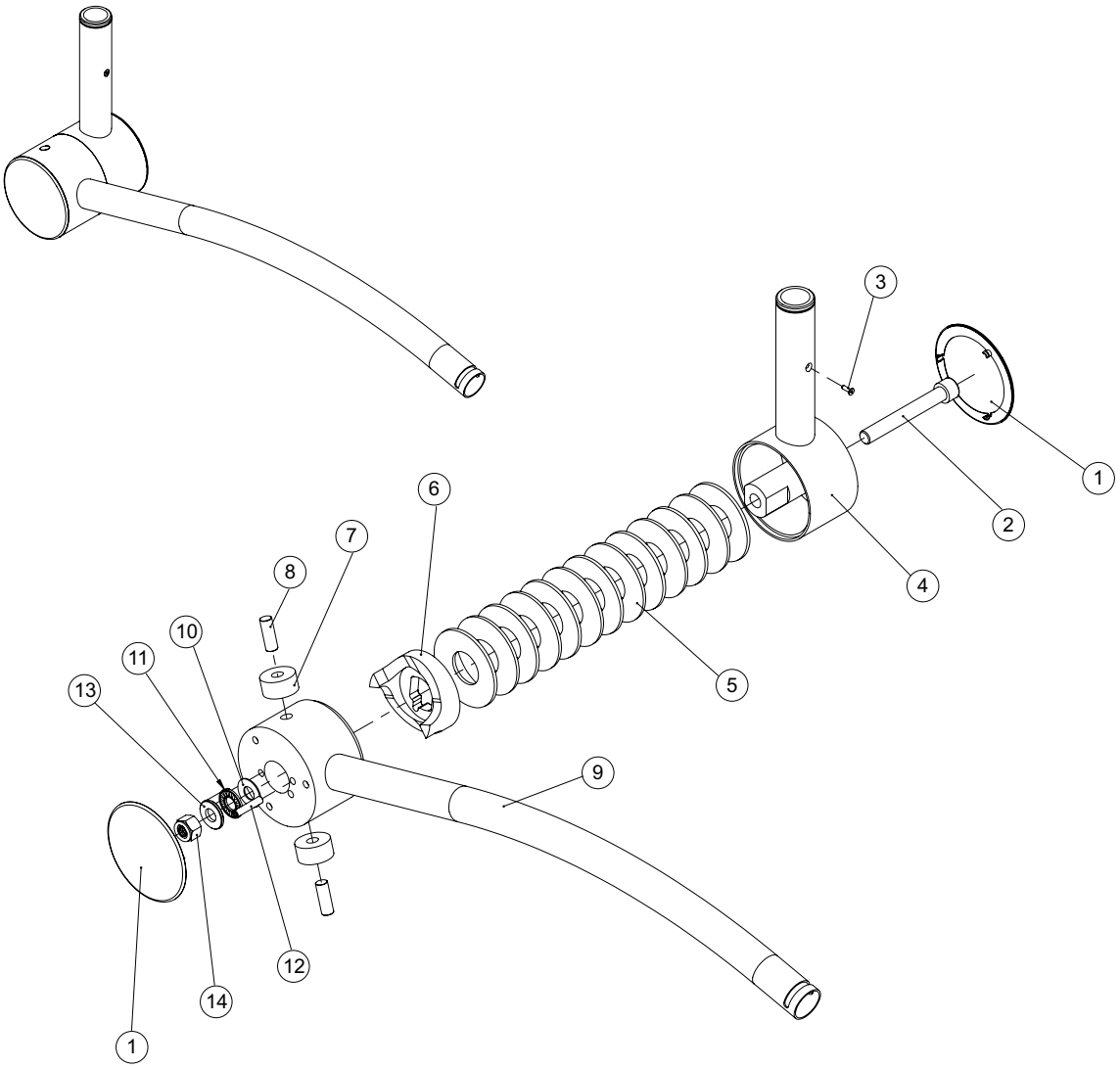
BLUE 30 WALL/CEILING-MOUNTED SPRING ARM PARTS LIST 13

Ref.	Part number	Description	Quantity
1		FHc M5 x 16 screw	2
2	5 690 13 001	Spring arm shaft	1
3	5 601 97 04	40x20.4x2.25 mm spring washer DIN 2093-1.8159	14
4	5 665 31 78	22x30x0.5 mm washer DIN 988 A4E	2
5		FHc M3 x 10 screw	1
6	5 690 13 210	BLUE 30 spring arm cam	1
7	5 69013 004	BLUE 30 spring arm interface	1
8		8M6x20 cylindrical pin	2
9	5 668 00 50	NK 8/12 TN needle bearing	2
10	5 690 10 073	BLUE 30 spring arm painted angled tube	1
11	5 668 00 55	AS 1226 stop washer	1
12	5 668 00 54	Axial needle bearing cage AXK 1226	1
13	5 668 00 56	LS 1226 stop washer	1
14	5 665 20 08	Nylstop nut DIN 985 A4E	1
15	**5 690 10 102**	**BLUE 30 spring arm cap**	**1**

BLUE 80 WALL/CEILING-MOUNTED SPRING ARM

DIAGRAM 14

5 690 42 999



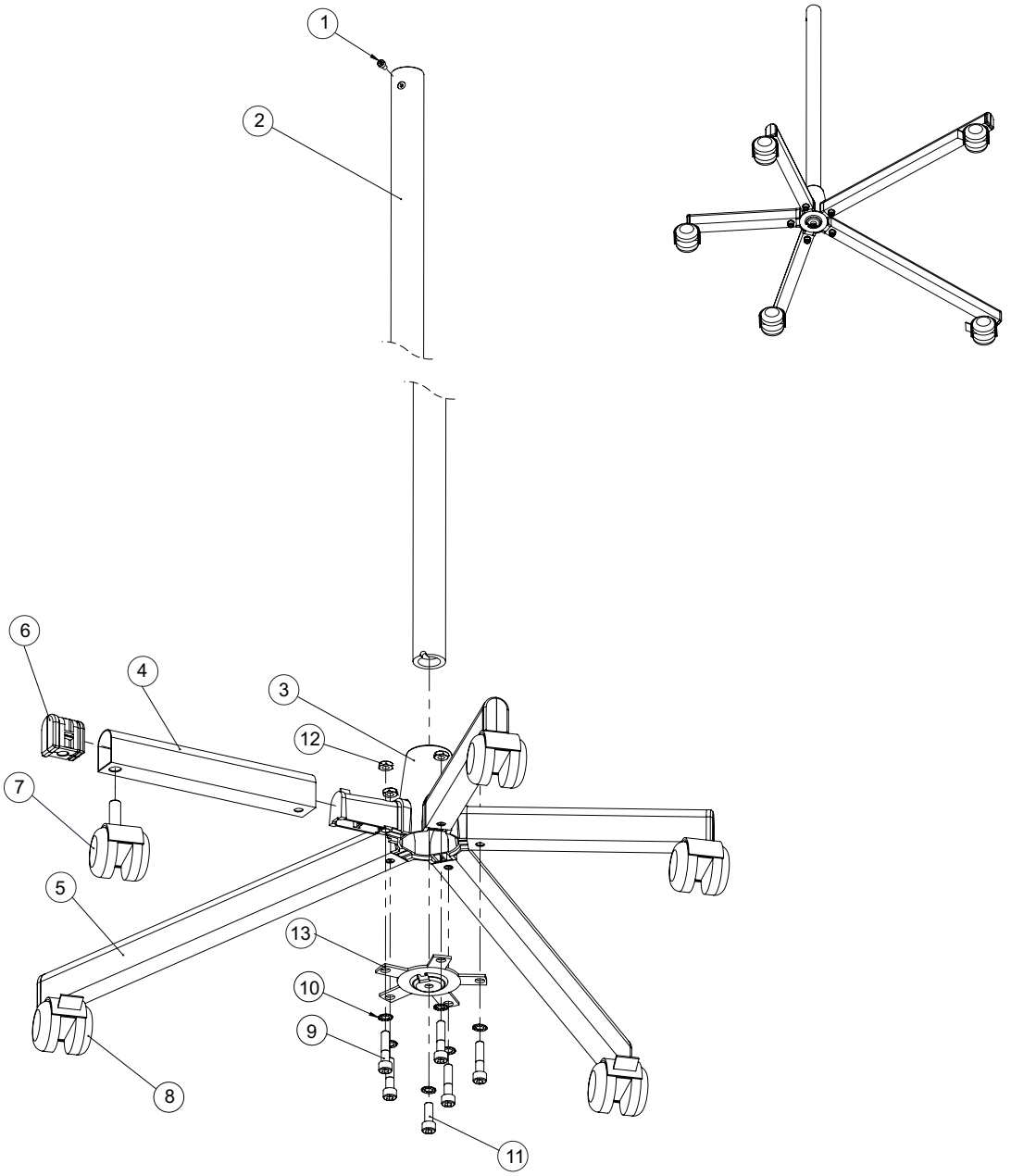
BLUE 80 WALL/CEILING-MOUNTED SPRING ARM PARTS LIST 14

Ref.	Part number	Description	Quantity
1	**5 690 10 100**	**BLUE 80 spring arm cap**	2
2	5 665 08 93	CHc M12x90 screw DIN 912-8.8 A4E	1
3		FHc M3 x 10 screw	1
4	5690 13 005	BLUE 80 spring arm interface	1
5	5 601 97 31	70 x 30.5 x 3 mm spring washer	13
6	5 607 73 55	BLUE 80 cam	1
7	5 668 00 52	NATV 10 axial guide cam roller	2
8	5 665 52 81	ISO8734 10H8x28-A-ST cam	2
9	5 690 10 071	BLUE 80 spring arm painted angled tube	1
10	5 668 00 55	AS 1226 stop washer	1
11	5 668 00 54	Axial needle bearing cage AXK 1226	1
12	5 665 02 95	Hc M6 x 30 screw DIN 913-45H A4E	2
13	5 668 00 56	LS 1226 stop washer	1
14	5 665 20 08	Nylstop nut DIN 985 A4E	1

7.3 BLUELINE MOBILE

BLUE 30 MOBILE STAND **DIAGRAM 15**

5 690 72 999



BLUE 30 MOBILE STAND

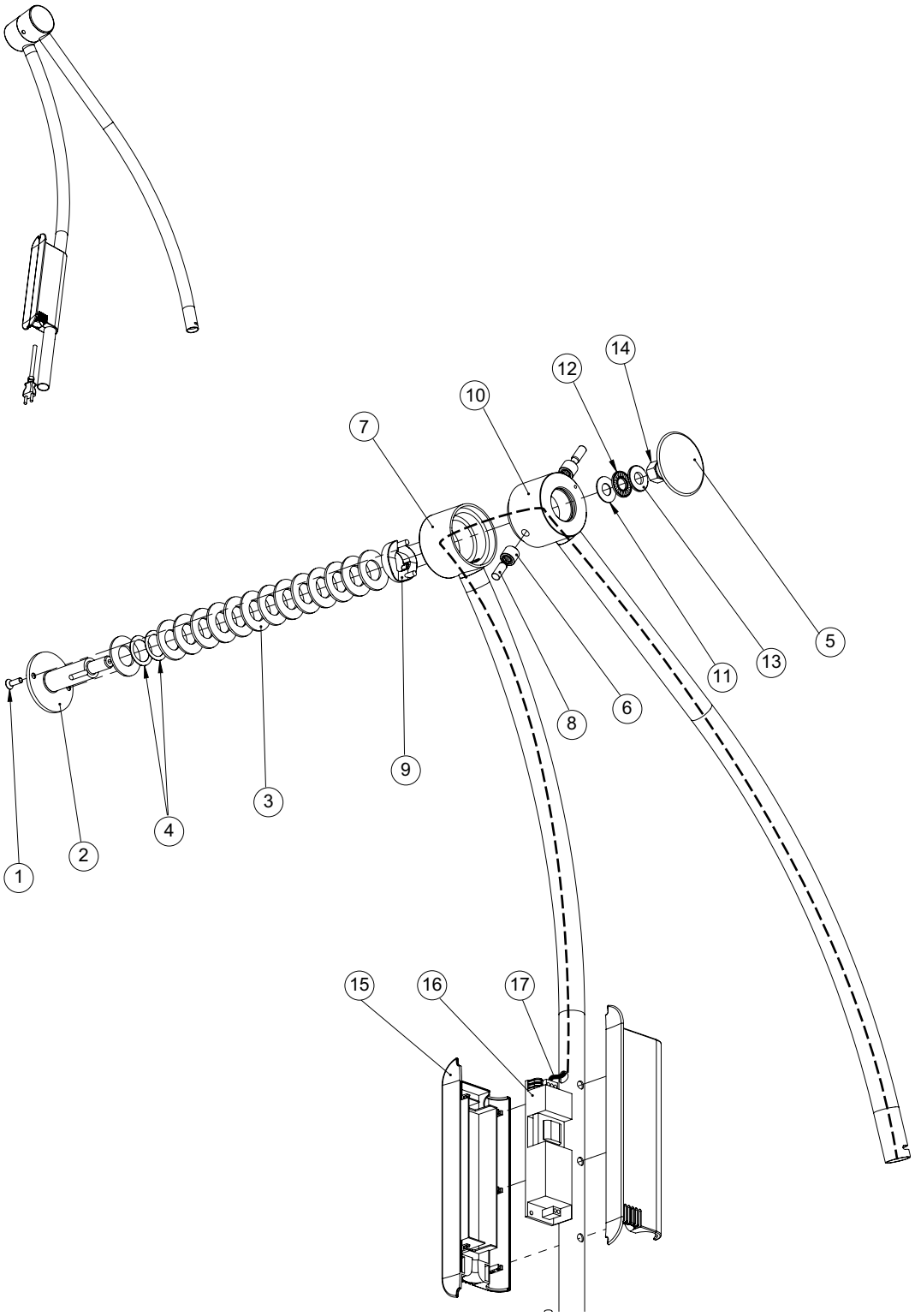
PARTS LIST 15

Ref.	Part number	Description	Quantity
1		M4 x 8 CHc screw DIN 7984	1
2	5 690 14 023	BLUE 30 MOBILE stand tube	1
3	5 690 14 025	Plastic star section	1
4	5 690 14 022	BLUE 30 short stand section	3
5	5 690 14 021	BLUE 30 long stand section	2
6	5 690 14 024	BLUE 30 cap	5
7	**5 605 17 83**	**50-ZIO x 35.5 caster**	**3**
8	**5 605 17 82**	**50-ZIO x 35.5 caster with brake (set of 2)**	**2**
	5 605 17 84	**Assembly kit for 3/5 legs**	
9		M8 x 35 CHc screw DIN 912	5
10		8.4 mm star washer DIN 6797	6
11		M8 x 22 CHc screw DIN 912	1
12		M8 nut DIN 934	5
13	5 690 14 026	BLUE 30 stand star section	1

BLUE 30 MOBILE SPRING ARM

DIAGRAM 16

5 690 40 999



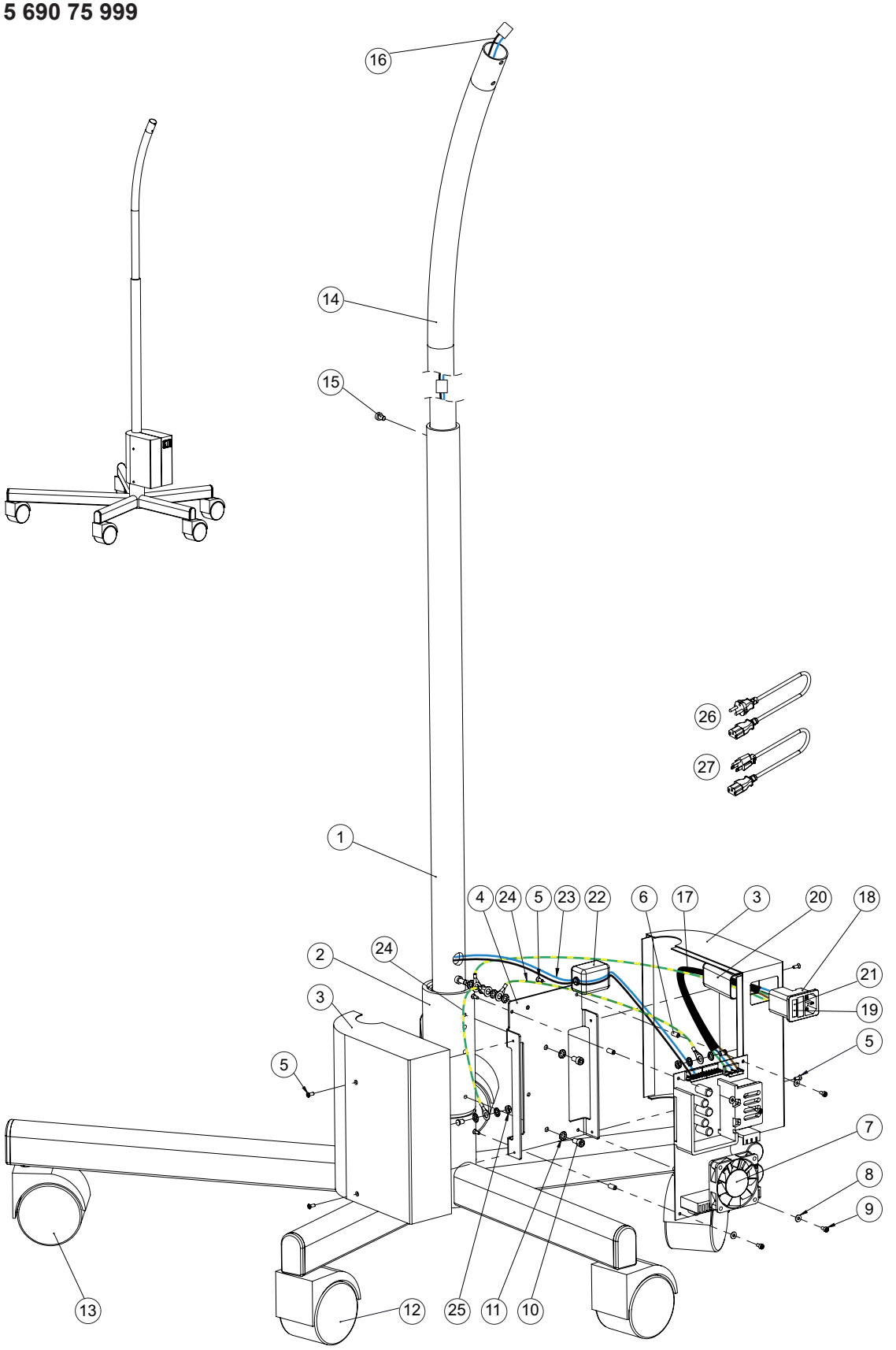
BLUE 30 MOBILE SPRING ARM — PARTS LIST 16

Ref.	Part number	Description	Quantity
1		FHc M5 x 16 screw	2
2	5 690 13 001	Spring arm shaft	1
3	5 601 97 04	40x20.4x2.25 mm spring washer DIN 2093-1.8159	14
4	5 665 31 78	22x30x0.5 mm washer DIN 988 A4E	2
5	**5 690 10 102**	**BLUE 30 spring arm cap**	1
6	5 690 13 210	BLUE 30 spring arm cam	1
7	5 690 14 003	BLUE 30 MOBILE spring arm vertical tube	1
8		8M6x20 cylindrical pin	2
9	5 668 00 50	NK 8/12 TN needle bearing	2
10	5 690 10 073	BLUE 30 spring arm painted angled tube	1
11	5 668 00 55	AS 1226 stop washer	1
12	5 668 00 54	Axial needle bearing cage AXK 1226	1
13	5 668 00 56	LS 1226 stop washer	1
14	5 665 20 08	Nylstop nut DIN 985 A4E	1
15	**5 690 10 103**	**BLUE 30 MOBILE spring arm complete power supply cover**	1
	3 693 07 555	**BLUE 30 MOBILE adjustable power supply (RAL Europe)**	
16	5 690 03 017	BLUE 30 MOBILE adjustable power supply (RAL Europe)	1
	3 693 08 555	**BLUE 30 MOBILE adjustable power supply (US)**	
16	5 690 03 019	BLUE 30 MOBILE adjustable power supply (US)	1
17	**5 600 44 82**	**Wiring**	1

BLUE 80 MOBILE STAND

DIAGRAM 17

5 690 75 999



BLUE 80 MOBILE STAND

PARTS LIST 17

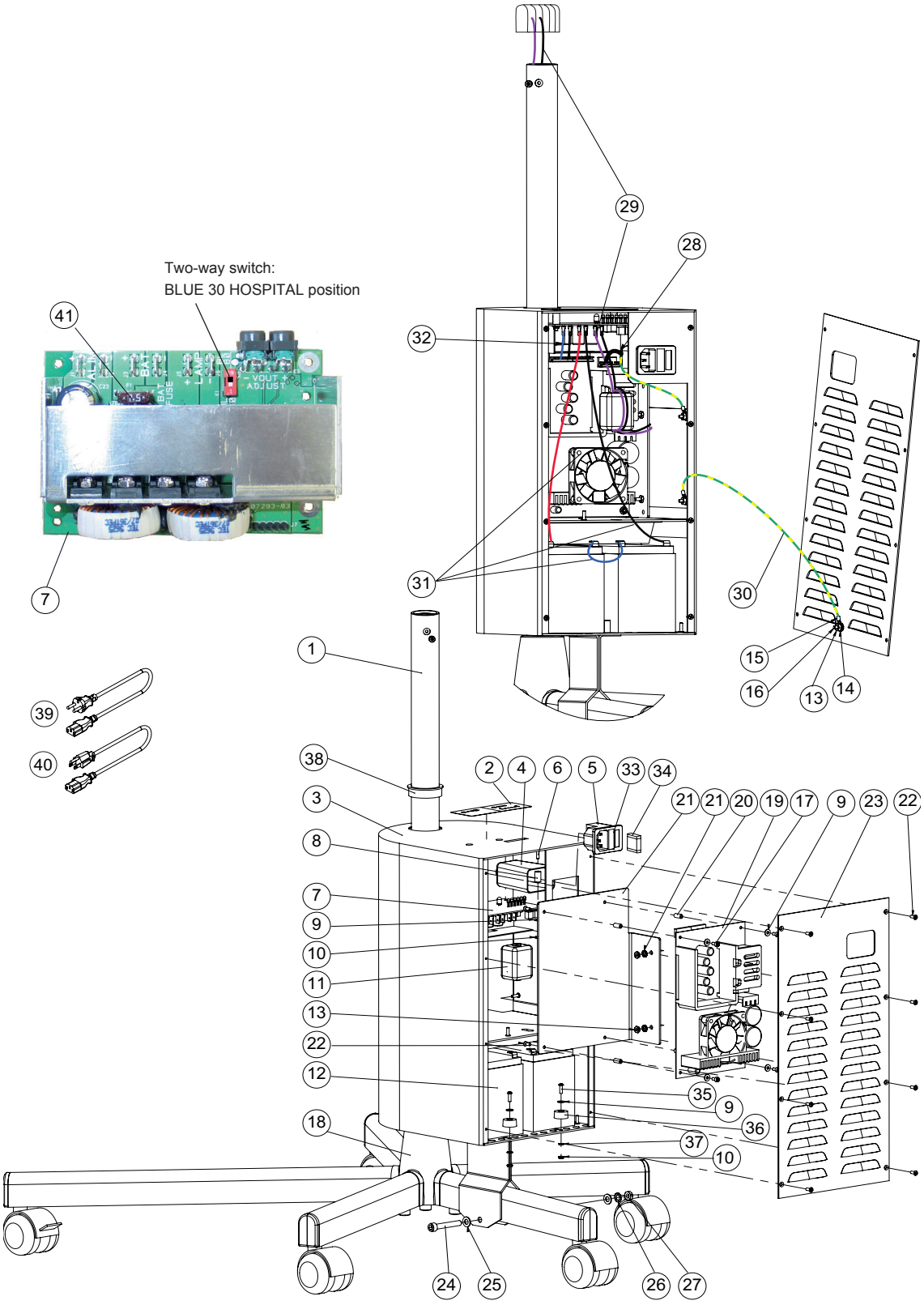
Ref.	Part number	Description	Quantity
1	5 690 14 000	BLUE 80 MOBILE stand straight tube	1
2	5 690 14 001	BLUE 80 MOBILE five-legged stand	1
3	5 690 14 032	BLUE 80 MOBILE transformer unit	1
4	5 690 14 031	power supply bracket	1
5	5 665 07 33	M3 x 8 screw DIN 966 - EN ISO 7047	8
6	6 951 10 310	M3 x 10 stainless steel cylindrical spacer	4
7	5 690 03 021	MPS 120-228 power supply	1
8	5 665 30 06	3.2 mm A-shape flat washer DIN 125	4
9	6 005 30 306	CHc M3 x 6 A2 stainless steel screw	4
10	5 665 07 62	Low-profile CHc M5x10 screw DIN 6912-8.8-A4E	3
11	5 665 30 75	5.3 mm A-shape star washer DIN 6797-A4E	10
12	**5 601 42 47**	**BLUE 80 75 mm caster**	**3**
13	**6 060 12 525**	**Flat anti-static caster 0443-01A**	**2**
14	5 690 14 005	BLUE 80 MOBILE spring arm vertical tube	1
15	5 665 08 23	Low-profile CHc M5 x 8 screw with guide hole DIN 7984 A2	1
16	5 600 44 88	BLUE stand cable	1
	3 690 10 997	**BLUE 80 MOBILE mains cable loom S/A**	
17	5 690 03 031	Wiring	1
18	6 914 00 095	KEC mains connector (BLUE 30/80)	1
19	6 890 04 520	2-pole fuse drawer without mains cut-out	1
20	5 601 89 21	Sleeve	1
	3 690 57 555	**Set of 10 5x20 3.15 A quick-blow fuses**	
21	6 936 00 020	5x20 3.15 A quick-blow fuse	2
	3 690 11 997	**BLUE 80 MOBILE power supply cable outlet loom**	
22	6 887 00 02	Ferrite	1
23	5 690 03 029	BLUE 80 power supply cable outlet	1
24	5 690 03 050	Earth cable	2
25	6 013 90 525	Hm M5 stainless steel nut A2 NF E27 411	2
26	**5 607 52 05**	**Mains cable (Europe)**	
27	**5 607 52 03**	**Mains cable (US)**	

7.4 BLUELINE HOSPITAL

BLUE 30 HOSPITAL

DIAGRAM 18

5 690 77 999



BLUE 30 HOSPITAL

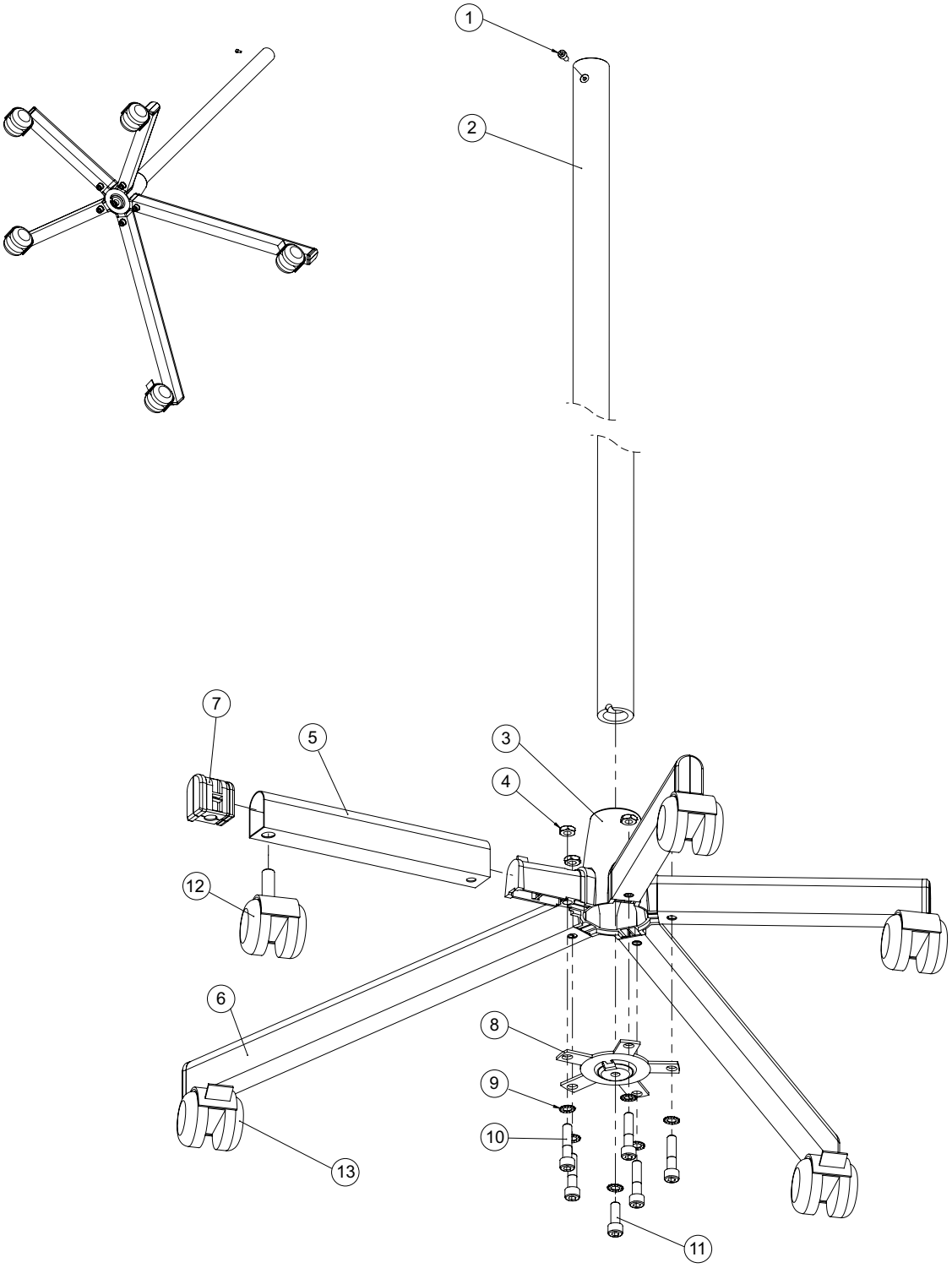
PARTS LIST 18

Ref.	Part number	Description	Quantity
1	5 69 14 027	BLUE 30 HOSPITAL stand tube	1
2	5 690 14 008	BLUE hospital label	1
3	5 690 10 075	BLUE 30 MOBILE transformer unit	1
4	5 601 89 21	Sleeve	1
5	6 914 00 95	Mains connector	1
6		M3 x 20 solder stud	4
7	5 690 03 022	BLUE 30/80 charger board	1
8	5 601 97 21	7 x 3.6 x 12 mm spacer	4
9	5 665 30 06	3.2 mm A-shape flat washer DIN 125	8
10	5 665 20 21	Nut DIN 934-5-A4E	4
11	6 887 00 02	Ferrite	1
12	5 607 78 97	Battery	2
13	6 013 20 432	Hu M4 stainless steel nut A2 DIN 934	5
14	5 665 30 71	A-shape 4.3 mm star washer DIN 6797-A4E	6
15		CEMBRE eyelet UL RP-M4	2
16		M4 x 10 solder stud	5
17	6 005 30 306	CHc M3 x 6 A2 stainless steel screw	4
18	5 690 14 200	BLUE 30 HOSPITAL light stand	1
19	5 690 03 042	MPS 120-15 power supply for BLUE hospital	1
20	5 951 10 310	M3 x 10 stainless steel cylindrical spacer	4
21	5 690 10 092	BLUE 30 HOSPITAL power supply bracket	1
22	5 665 07 33	M3 x 8 screw DIN 966 - EN ISO 7047	12
23	5 690 10 086	BLUE 30 hospital transformer unit grille	1
24	5 665 09 19	CHc M6 x 40 screw DIN 912-8.8 A4E	2
25	5 665 30 13	6.4 mm flat washer DIN 125-ST-B2E	3
26	5 665 30 77	6.4 mm star washer DIN 6797 FD-ST A4E	2
27	5 665 20 32	M6 nut DIN 6-934-A5E	3
28	5 690 03 031	BLUE charger mains power supply cable	1
29	5 690 03 049	BLUE 30 HOSPITAL charger board cable	1
30	5 600 43 69	Earth cable	1
31	5 690 03 027	BLUE 30 battery charger cable	1
32	5 690 03 036	BLUE 30 power supply charger cable outlet	1
33	6 890 04 520	2-pole fuse drawer without mains cut-out	1
	3 690 57 555	**Set of 10 5x20 3.15 A quick-blow fuses**	**1**
34	6 936 00 020	5x20 3.15 A quick-blow fuse	2
35	5 665 05 24	Pan head cross-head M3 x 10 screw DIN 7985-4.8-A4E	2
36	5 601 97 75	Bush	2
37	5 665 30 66	3.2 mm star washer DIN 6797-A4E	2
38	5 601 97 74	White mounting ring	2
39	5 607 52 05	Mains cable (Europe)	1
40	5 607 52 03	Mains cable (US)	1
	3 693 01 555	**Pack of 10 miniature 7.5 A 32 V quick-blow fuses**	1
41	6 936 00 050	Miniature 7.5 A 32 V quick-blow fuse	1

BLUE 30 HOSPITAL STAND

DIAGRAM 19

5 690 14 200



BLUE 30 HOSPITAL STAND

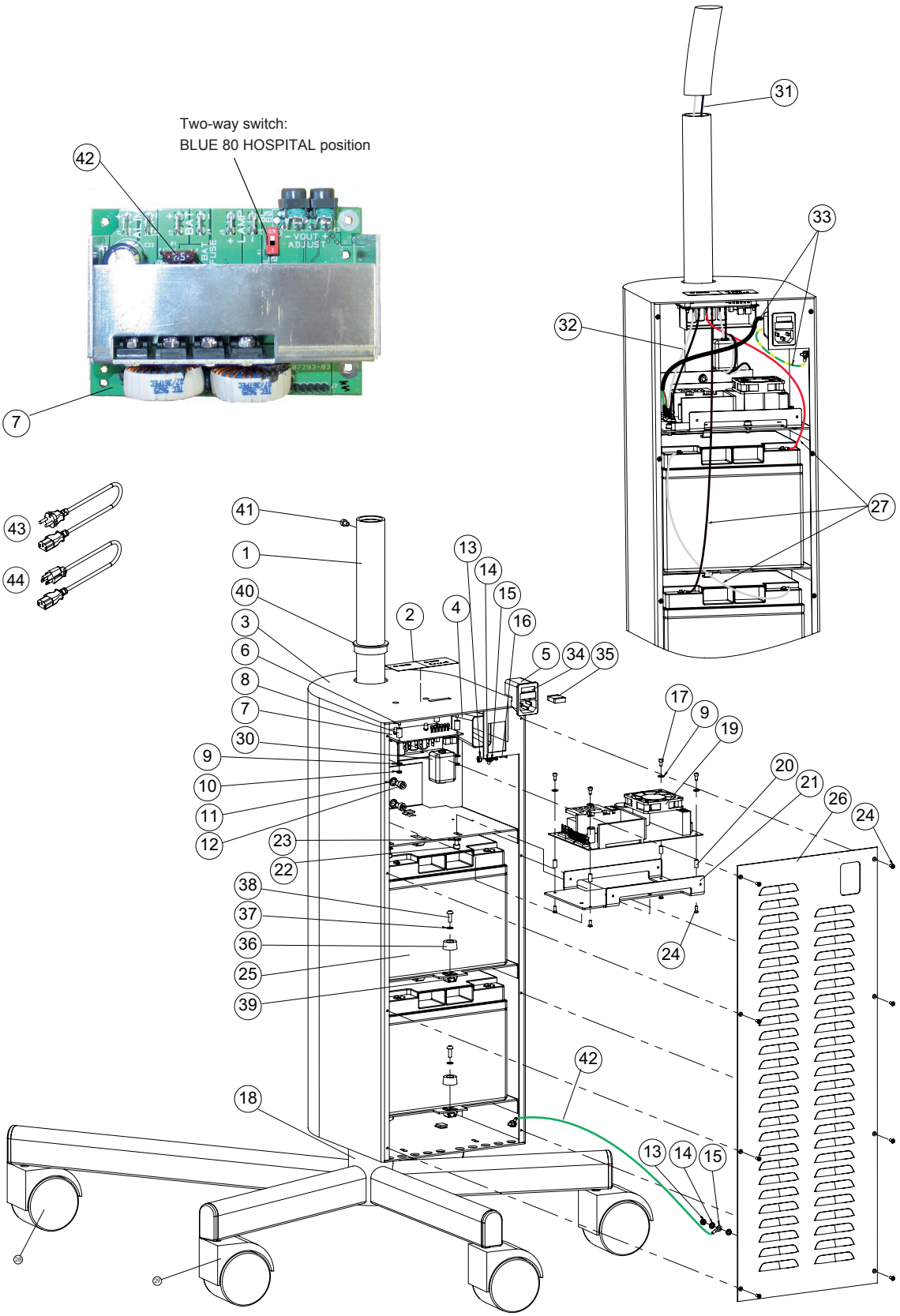
PARTS LIST 19

Ref.	Part number	Description	Quantity
1		M4 x 8 CHc screw DIN 7984	1
2	5 690 14 027	BLUE 30 HOSPITAL stand tube	1
4	5 690 14 025	Plastic star section	1
5		M8 nut DIN 934	5
6	5 690 14 022	BLUE 30 short stand section	3
7	5 690 14 021	BLUE 30 long stand section	2
8	5 690 14 024	BLUE 30 cap	5
	5 605 17 84	**Assembly kit for 8/5 legs**	
9	5 690 14 026	BLUE 30 stand star section	1
10		8.4 mm star washer DIN 6797	6
11		M8 x 35 CHc screw DIN 912	5
3		M8 x 22 CHc screw DIN 912	1
12	5 605 17 83	50-ZIO x 35.5 caster	3
13	5 605 17 82	50-ZIO x 35.5 caster with brake	2

BLUE 80 HOSPITAL STAND

DIAGRAM 20

5 690 76 999



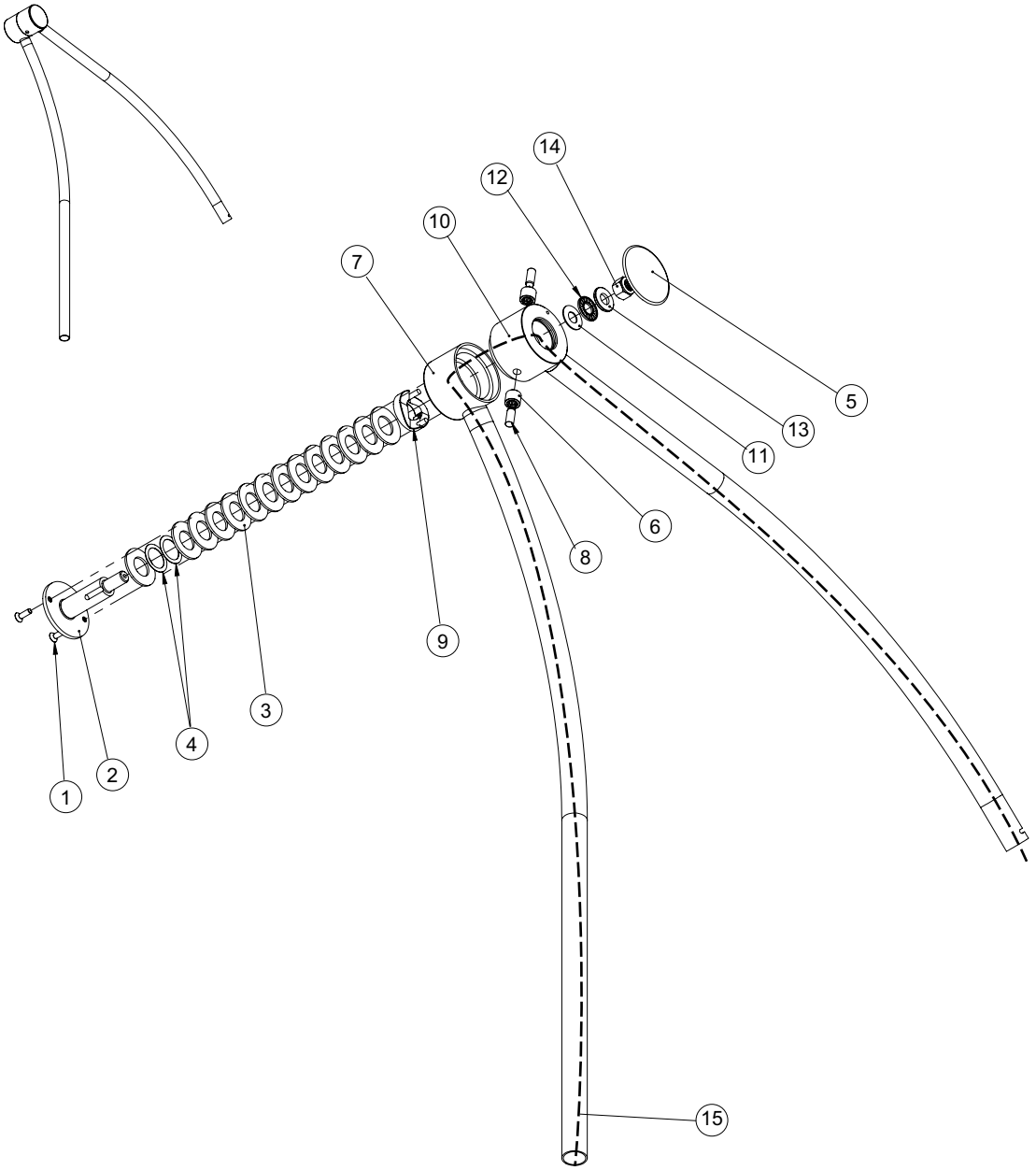
BLUE 80 HOSPITAL STAND — PARTS LIST 20

Ref.	Part number	Description	Quantity
1	5 69 10 070	BLUE 80 HOSPITAL stand straight tube	1
2	5 690 14 008	BLUE hospital label	1
3	5 690 10 072	BLUE 80 MOBILE transformer unit	1
4	5 601 89 21	Sleeve	1
5	6 914 00 95	Mains connector	1
6		M3 x 20 solder stud	4
7	5 690 03 022	BLUE 30/80 charger board	1
8	5 601 97 21	7 x 3.6 x 12 mm spacer	4
9	5 665 30 06	3.2 mm A-shape flat washer DIN 125	8
10	5 665 20 21	Nut DIN 934-5-A4E	4
11	5 665 30 77	A-shape 6.4 mm star washer DIN 6797 FD-ST A4E	6
12	5 665 02 82	CHc M6 x 40 screw DIN 912-8.8 A4E	6
13	6 013 20 432	Hu M4 stainless steel nut A2 DIN 934	3
14	5 665 30 71	A-shape 4.3 mm star washer DIN 6797-A4E	6
15		5.3 mm eyelet UL	3
16		M4 x 10 solder stud	3
17	6 005 30 306	CHc M3 x 6 A2 stainless steel screw	4
18	5 690 14 001	BLUE 80 MOBILE five-legged stand	1
19	5 690 03 042	MPS 120-15 power supply for BLUE hospital	1
20	5 951 10 310	M3 x 10 stainless steel cylindrical spacer	4
21	5 690 14 031	power supply bracket	1
22	5 665 07 62	Low-profile CHc M5x10 screw DIN 6912-8.8-A4E	2
23	5 665 30 75	A-shape 5.3 mm star washer DIN 6797-A4E	2
24	5 665 07 33	M3 x 8 screw DIN 966 - EN ISO 7047	12
25	5 606 77 42	AMP 9041 S12V-45Ah battery	2
26	5 690 10 082	BLUE 80 hospital transformer unit grille	1
27	5 690 03 026	BLUE 80 battery charger cable	
28	6 060 12 525	Flat anti-static caster 0443-01A	2
29	5 601 42 47	BLUE 80 75 mm caster	3
30	6 887 00 02	Ferrite	1
31	5 690 03 032	BLUE 80 power supply cable outlet	1
32	5 690 03 036	BLUE power supply charger cable outlet	1
	3 690 10 997	**BLUE 80 mains cable loom S/A**	
33	5 690 03 031	BLUE charger mains power supply cable	1
34	6 890 04 520	2-pole fuse drawer without mains cut-out	1
	3 690 57 555	**Set of 10 5x20 3.15 A quick-blow fuses**	
35	6 936 00 020	5x20 3.15 A quick-blow fuse	2
36	5 601 6289	Rubber bush	2
37	5 665 30 08	4.3 mm flat washer DIN 125-ST A4E	2
38	5 665 07 50	M4 x 12 Z-type cross-head screw DIN 7985	2
39	5 607 58 31	Captive nut	2
40	5 601 81 90	Ring	1
41	5 665 08 23	CHc low-profile M5 x 8 screw DIN 7984 A2	1
42	5 600 43 69	Earth cable	1
43	5 607 52 05	Mains cable (Europe)	1
44	5 607 52 03	Mains cable (US)	1
	6 936 00 050	**Pack of 10 miniature 7.5 A 32 V quick-blow fuses**	
45	6 936 00 050	Miniature 7.5A 32V quick-blow fuse	

BLUE 30 HOSPITAL SPRING ARM

DIAGRAM 21

5 690 44 999



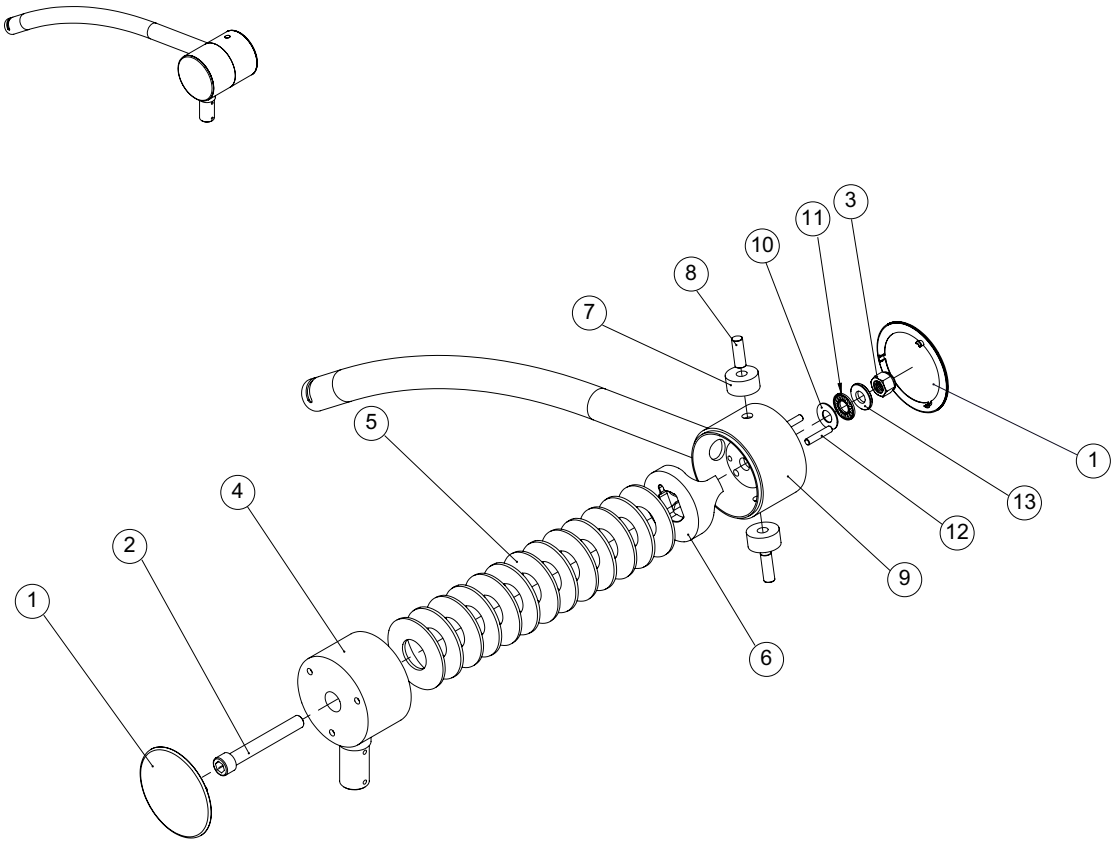
BLUE 30 HOSPITAL SPRING ARM — PARTS LIST 21

Ref.	Part number	Description	Quantity
1		FHc M5 x 16 screw	2
2	5 690 13 001	Spring arm shaft	1
3	5 601 97 04	40x20.4x2.25 mm spring washer DIN 2093-1.8159	14
4	5 665 31 78	22x30x0.5 mm washer DIN 988 A4E	2
5	**5 690 10 102**	**BLUE 30 spring arm cap**	**1**
6	5 690 13 210	BLUE 30 spring arm cam	1
7	5 690 10 074	BLUE 30 spring arm vertical tube	1
8		8M6x20 cylindrical pin	2
9	5 668 00 50	NK 8/12 TN needle bearing	2
10	5 690 10 073	BLUE 30 spring arm painted angled tube	1
11	5 668 00 55	AS 1226 stop washer	1
12	5 668 00 54	Axial needle bearing cage AXK 1226	1
13	5 668 00 56	LS 1226 stop washer	1
14	5 665 20 08	Nylstop nut DIN 985 A4E	1
15	5 690 03 048	Spring arm ergodisc cable	

BLUE 80 MOBILE/HOSPITAL SPRING ARM

DIAGRAM 22

5 690 43 999



BLUE 80 MOBILE/HOSPITAL SPRING ARM — PARTS LIST 22

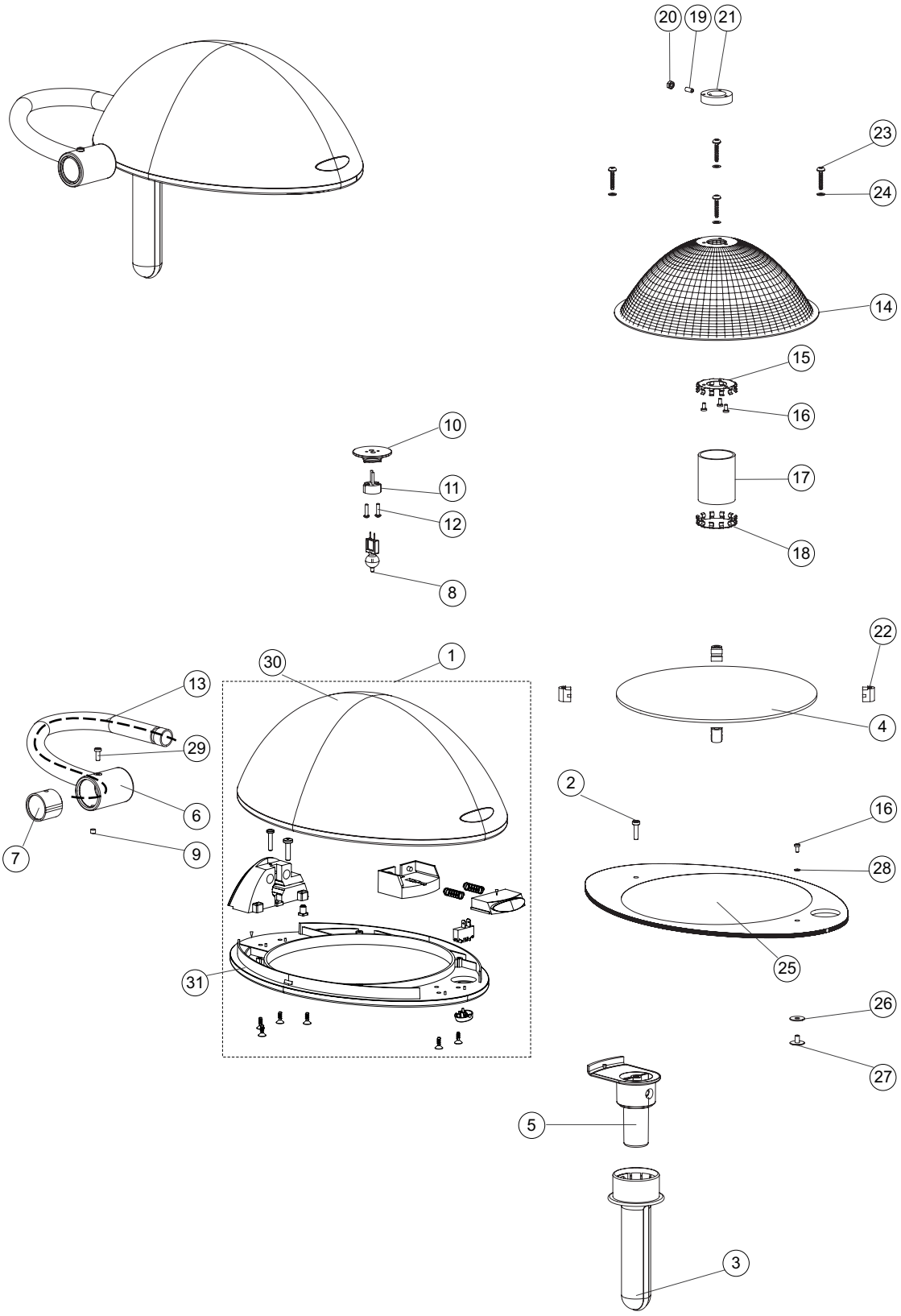
Ref.	Part number	Description	Quantity
1	**5 690 10 100**	**BLUE 80 spring arm cap**	**2**
2	5 665 08 93	CHc M12x90 screw DIN 912-8.8 A4E	1
3	5 665 20 08	Nylstop nut DIN 985 A4E	1
4	5690 14 004	BLUE 80 MOBILE spring arm interface	1
5	5 601 97 31	70 x 30.5 x 3 mm spring washer	13
6	5 607 73 55	BLUE 80 cam	1
7	5 668 00 52	NATV 10 axial guide cam roller	2
8	5 665 52 81	10H8x28-A-ST cam ISO 8734	2
9	5 690 10 071	BLUE 80 spring arm painted angled tube	1
10	5 668 00 55	AS 1226 stop washer	1
11	5 668 00 541	Axial needle bearing cage AXK 1226	1
12	5 665 02 95	Hc M6 x 30 screw DIN 913-45H A4E	2
13	5 668 00 56	LS 1226 stop washer	1

7.5 LIGHTHEADS

BLUE 30 LIGHTHEAD

DIAGRAM 23

5 690 50 999



BLUE 30 LIGHTHEAD

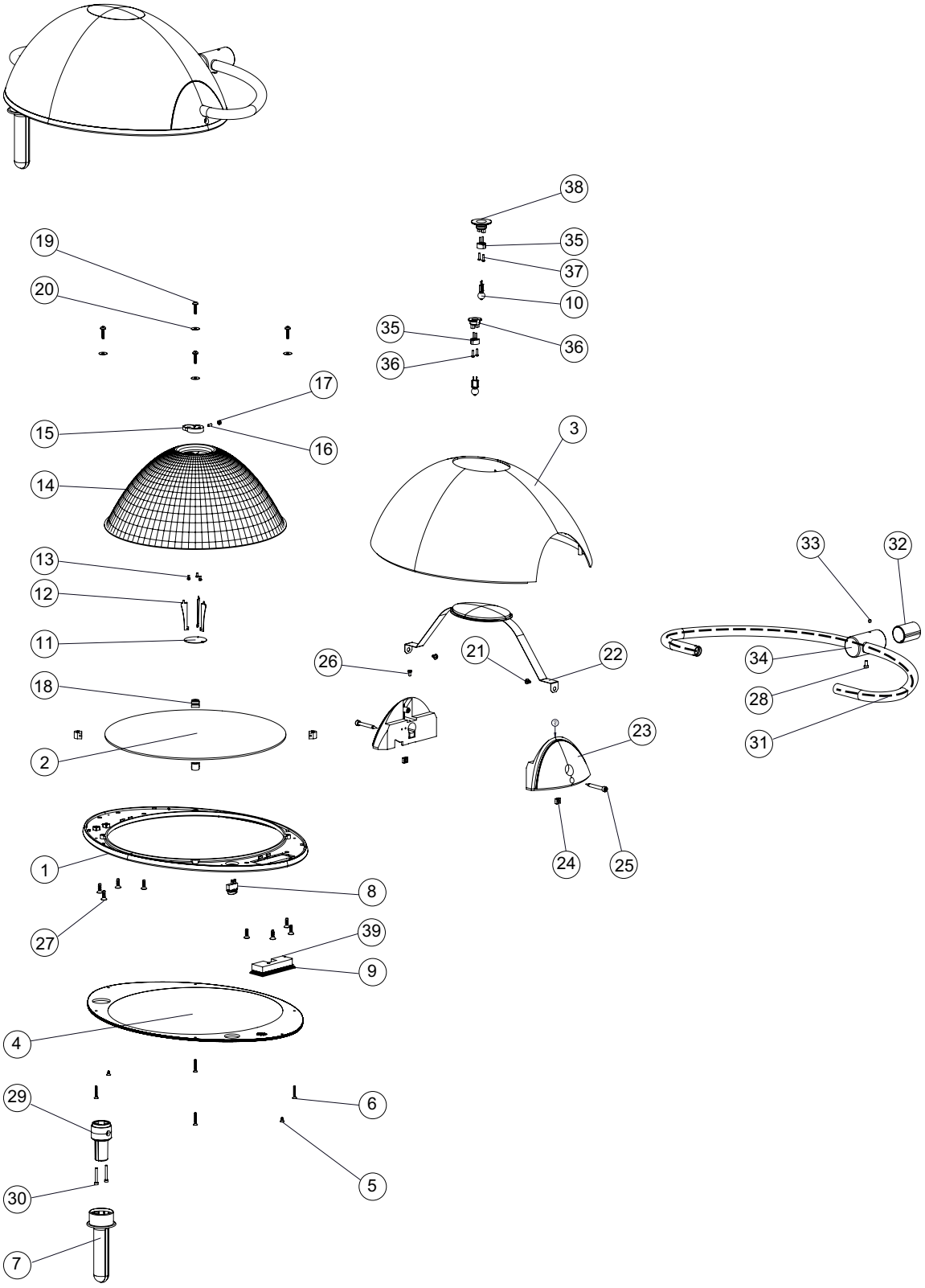
PARTS LIST 23

Ref.	Part number	Description	Quantity
1	**5 690 05 624**	**BLUE 30 body**	**1**
2	6 000 80 416	Pan-head cross-head screw - 6 lobes - zinc-plated steel - M4 x 16	1
3	5 607 72 70	Sterilisable handle	1
4	**5 690 05 034**	**BLUE 30 - lens**	**1**
5	5 690 05 620	BLUE 30 sterilisable handle bracket - assembled	1
6	5 690 05 504	fork	1
7	5 607 78 58	BLUE 30 fork ring	1
8	5 679 01 014	SWIR bulb XIR001	1
9	6 005 80 504	Hex socket set screw - M5 x 4 - stainless steel	1
10	5 690 05 071	Socket bracket	1
11	5 690 03 013	B30 halogen socket, wired	1
12	6 012 50 312	Pan head screw - 6 lobes - M3x12 - stainless steel	2
13	5 690 03 014	Fork cable	
	3 690 03 997	**BLUE 30 reflector S/A**	
14	5 690 05 004	BLUE 30 Reflector	1
15	5 690 05 021	Spring blanking plate - machined	1
16	6 000 80 306	Pan-head cross-head screw - 6 lobes - zinc-plated steel - M3 x 6	3
17	5 690 05 024	BLUE 30 glass tube	1
18	5 690 05 020	Spring blanking plate	1
19	6 566 00 011	Spring bush - hex socket - stainless steel - M4 x 9	1
20	6 014 10 402	H 0.8 M4 nut - stainless steel	1
21	5 690 05 070	Bracket	1
	3 690 40 555	**BLUE 30 spacer kit**	
22	5 690 05 060	BLUE 30 spacer	4
23	6 009 90 040	Plastic raised countersunk head screw - Pozidriv - L 20 - Ø 4	4
24	6 023 70 043	Flat washer - Ø8 - Ø4.3 - thickness 0.5 mm - zinc-plated steel	4
	3 690 50 555	**BLUE 30 underside replacement kit**	
25	5 690 05 002	Underside	1
26	5 665 31 87	Plastic washer	1
27	5 607 72 72	Clip	1
16	6 000 80 306	Pan-head cross-head screw - 6 lobes - zinc-plated steel - M3 x 6	1
28	6 024 20 306	Flat washer - Ø6 - Ø3.2 - thickness 0.5 mm - zinc-plated steel	1
	3 690 51 555	**Set of BLUE 30 safety screws (pack of 5)**	
29	6 007 70 410	Low-profile pan head Torx screw - M4 x 10 - stainless steel	1
30	5 690 05 601	BLUE 30 shell	1
31	5 690 05 604	BLUE 30 base	

BLUE 80 LIGHTHEAD

DIAGRAM 24

5 690 51 999



BLUE 80 LIGHTHEAD

PARTS LIST 24

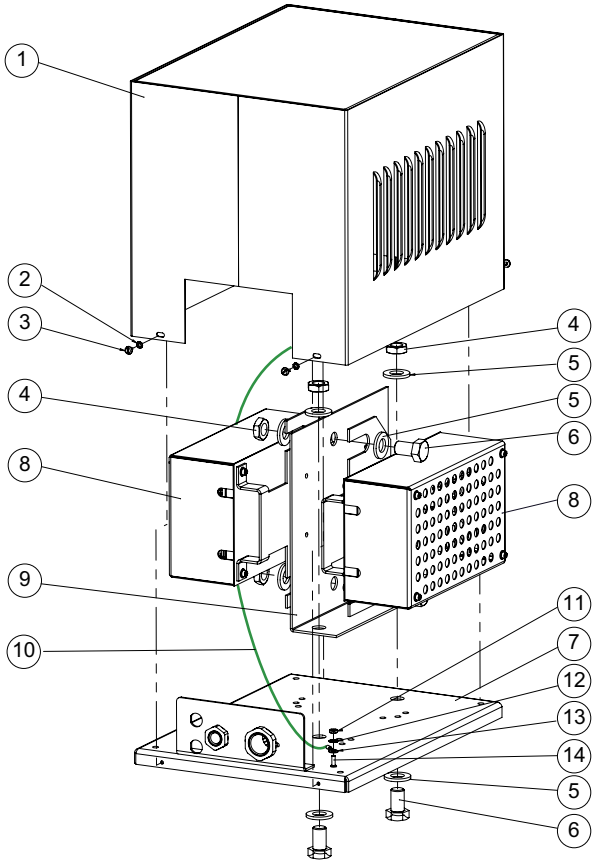
Ref.	Part number	Description	Quantity
1	5 690 05 628	BLUE 80 base assembly	1
2	**5 690 05 035**	**BLUE 80 - lens**	**1**
3	**5 690 05 611**	**BLUE 80 shell**	**1**
4	5 690 05 051	BLUE 80 - underside	1
5	5 601 95 09	Plastic countersunk head screw - L 8 - Ø 4	2
6	5 665 00 31	Plastic countersunk head screw - L 25 - Ø 4	4
7	5 607 72 70	Sterilisable handle	1
8	**5 601 97 05**	**Switch assembly**	**1**
9	**5 690 03 016**	**Circuit board**	**1**
10	6 950 00 066	80W SWIR bulb	2
	3 690 04 997	**BLUE 80 reflector S/A**	
11	5 690 05 042	Painted bezel	1
12	5 690 05 041	Bezel bracket	3
13	6 000 80 306	Pan-head cross-head screw - 6 lobes - zinc-plated steel - M3 x 6	3
14	5 690 05 005	BLUE 80 - reflector	1
15	5 690 05 080	Bracket	1
16	6 566 00 011	Spring bush - hex socket - stainless steel - M4 x 9	1
17	6 014 10 402	H 0.8 M4 nut - stainless steel	1
	3 690 42 555	**BLUE 80 spacer kit**	
18	5 690 05 061	BLUE 80 spacer	4
19	6 009 90 041	Plastic raised countersunk head screw - Pozidriv - L 20 - Ø 5	4
20	6 021 81 652	Flat washer - Ø16 - Ø5.3 - thickness 1 mm - stainless steel	4
	3 690 54 555	**BLUE 80 flap kit**	
21	5 601 95 21	Plastic raised countersunk head screw - Pozidriv - L 8 - Ø 5	2
22	5 690 05 630	BLUE 80 flap assembly	1
	3 690 53 555	**Fork bracket kit**	
23	5 690 05 616	BLUE 80 fork bracket	2
24	5 665 20 68	Square nut 10x10 - M6 - thickness 5 mm	2
25	5 607 73 04	Modified screw	2
26	5 665 04 70	Raised countersunk head screw - Pozidriv - M4 x 8	1
27	5 601 95 20	Plastic countersunk head screw - L 18 - Ø 6	8
	3 690 52 555	**Pack of safety screws**	
28	6 012 40 510	Low-profile pan head Torx screw - M5 x 10 - stainless steel (x5)	1
	3 690 55 555	**Handle bracket kit**	
29	5 690 05 621	BLUE 80 sterilisable handle bracket - assembled	1
30	6 009 50 430	Pan head screw - 6 lobes - stainless steel - M4 x 30	2
	3 690 08 999	**Fork S/A**	
31	5 690 03 015	BLUE 80 fork cable kit	
32	5 607 78 57	BLUE 80 fork ring	1
33	6 005 80 504	Hex socket set screw - M5 x 4 - stainless steel	1
28	6 012 40 510	Low-profile pan head Torx screw - M5 x 10 - stainless steel (x5)	1
34	5 690 05 515	Fork	1
	3 690 05 999	**Spare bulb holder**	
35	5 690 03 012	B80 halogen socket, wired	2
36	5 690 05 082	Socket bracket 80 - 2	1
37	6 012 50 312	Pan head screw - 6 lobes - M3x12 - stainless steel	4
	3 690 06 997	**Main bulb holder**	
35	5 690 03 012	B80 halogen socket, wired	2
38	5 690 05 081	Socket bracket 80 - 1	1
37	6 012 50 312	Pan head screw - 6 lobes - M3x12 - stainless steel	4
	3 693 07 555	**Pack of 5 x 6.3 A fuses for B80 circuit board**	
39	6 936 00 028	6.3 A fuse	1

7.6 POWER SUPPLY BOXES

BLUE 80 + BLUE 80 POWER SUPPLY BOX

DIAGRAM 25

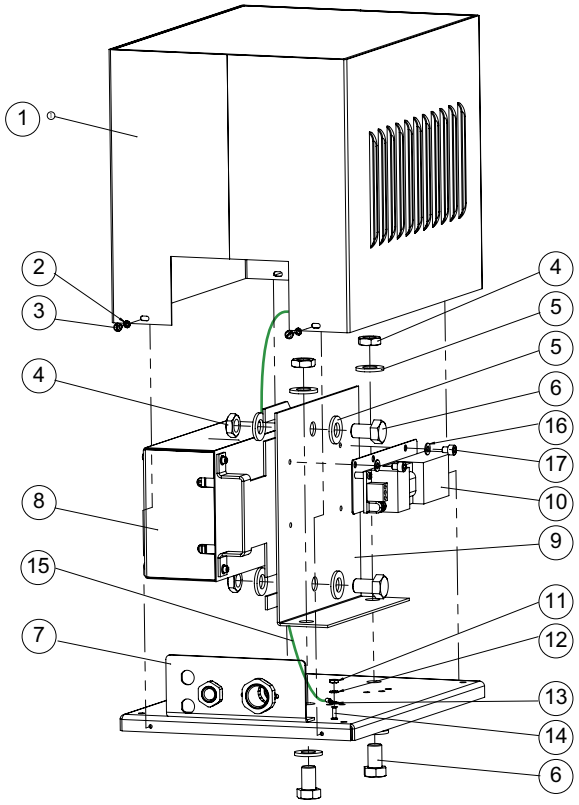
5 690 25 999



BLUE 80 + BLUE 30 POWER SUPPLY BOX

DIAGRAM 26

5 690 25 999



BLUE 80 + BLUE 80 POWER SUPPLY BOX — PARTS LIST 25

Ref.	Part number	Description	Quantity
1	5 690 10 091	Power supply box shell	1
2		A-shape 3.2 mm star washer DIN 6797	4
3		ST 3.5x10 - C panel screw	4
4	6 013 21 210	HM 12 stainless steel nut	4
5	6 023 22 412	Z12 A2 stainless steel washer E 27611	8
6	6 004 51 220	TH M12x20 stainless steel screw	4
7	5 690 10 090	power supply box cover	1
8		Housing for BLUE 80 power supply	2
9	5 690 03 052	Power supply box bracket	1
10		150 mm earth wire	1
11		M4 hex nut - 8 ISO 4032	2
12		A-shape 4.3 mm star washer DIN 6798	2
13		M4 round eyelet	2
14		M4 solder stud	2

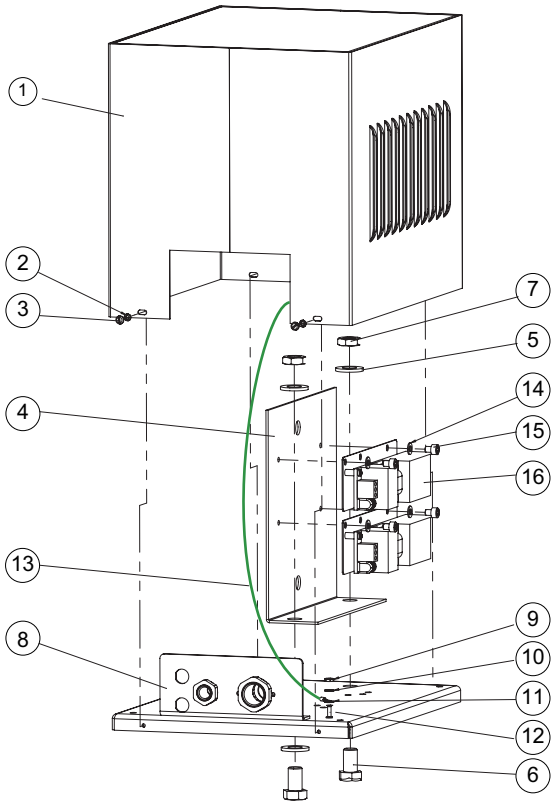
BLUE 80 + BLUE 30 POWER SUPPLY BOX — PARTS LIST 26

Ref.	Part number	Description	Quantity
1	5 690 10 091	Power supply box shell	1
2		A-shape 3.2 mm star washer DIN 6797	4
3		ST 3.5x10 - C panel screw	4
4	6 013 21 210	HM 12 stainless steel nut	4
5	6 023 22 412	Z12 A2 stainless steel washer E 27611	8
6	6 004 51 220	TH M12x20 stainless steel screw	4
7	5 690 10 090	Power supply box cover	1
8		Housing for BLUE 80 power supply	1
9	5 690 03 052	Power supply box bracket	1
10	5 690 03 018	BLUE 30 wall/ceiling-mounted adjustable power supply	1
11		M4 hex nut - 8 ISO 4032	2
12		A-shape 4.3 mm star washer DIN 6798	2
13		M4 round eyelet	2
14		M4 solder stud	2
15		150 mm earth wire	1
16		M5 Onduflex washer	2
17		CHc M5 x 6 screw	2

BLUE 30 + BLUE 30 POWER SUPPLY BOX

DIAGRAM 27

5 690 25 999



BLUE 30 + BLUE 30 POWER SUPPLY BOX — PARTS LIST 27

Ref.	Part number	Description	Quantity
1	5 690 10 091	Power supply box shell	1
2		A-shape 3.2 mm star washer DIN 6797	4
3		ST 3.5x10 - C panel screw	4
4	5 690 03 052	Power supply box bracket	1
5	6 023 22 412	Z12 A2 stainless steel washer E 27611	4
6	6 004 51 220	TH M12x20 stainless steel screw	2
7	6 013 21 210	HM 12 stainless steel nut	2
8	5 690 10 090	Power supply box cover	1
9		M4 hex nut - 8 ISO 4032	2
10		A-shape 4.3 mm star washer DIN 6798	2
11		M4 round eyelet	2
12		M4 solder stud	2
13		150 mm earth wire	1
14		M5 Onduflex washer	4
15		CHc M5 x 6 screw	4
16	5 690 03 018	BLUE 30 wall/ceiling-mounted adjustable power supply	2

8 TROUBLESHOOTING

Anomaly	Likely cause	Corrective action
• Lighthead does not turn on.	• Faulty or missing bulb.	• Cut off the power supply and replace the bulb(s).
	• Power cut.	• Check if other devices on the same supply network are operating.
	• Other reason.	• Call Maquet technical department.
• Light flickers.	• Contact problem.	• Call Maquet technical department.
• Illumination too bright/too dim.	• Supply voltage incorrect.	• Have an electrician check the power supply.
		• Check the bulb and replace if necessary.
• Bulb service life too short.	• Non-compliant bulbs used, or voltage surges occur.	• Check that the bulbs recommended by Maquet are used.
		• Have an electrician check the power supply.
• Unnatural colours.	• Unsuitable bulb(s) used.	• Replace the bulb(s).
• Light spot is not round	• Unsuitable bulb(s) used.	• Check the bulb and replace if necessary.
	• Incorrect bulb position.	• Check bulb position.
	• Main bulb faulty.	• Check the bulb and replace if necessary.
• Sterilisable handle does not fit properly in its mount.	• Sterilisation parameters (temperature, time) exceeded.	• Check the operation of the handle and in particular the locking mechanism (audible click).
	• Maximum service life exceeded / handle deformed.	• Replace the handle.
• Lighthead drifts.	• Suspension tube not vertical.	• Check tube verticality and ceiling structure.
	• Ceiling structure unstable.	• Call Maquet technical department.
• Lighthead too flexible or too rigid to manoeuvre.	• Brake incorrectly adjusted.	• Adjust the balancer.
	• Insufficient lubrication.	• Call Maquet technical department.

Our network is at your disposal if you have any queries.

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